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PHOTOGRAPHS FROM MANUFACTURING DISTRICTS.—No. IV.

THE WALKER FAMILY, AND THE CAST-IRON TRADE.—Anyone having lately travelled from London to Leeds by the North Midland line will remember Masbro' Station: during the detention which will sometimes happen there it is quite possible for a person to speculate on what might be the chief occupation of the people residing in that locality. There are houses with garden patches, where every green thing looks as if dyed various colours by the darkened atmosphere of forges, rolling-mills, and furnaces. There are old houses which seem as if they were soliciting to be pulled down, to save them the trouble of falling. Bearing a peculiar contrast with these, there appears at a little distance a noble mansion, lately occupied by almost the last of the Walker family; and on the other side may be seen innumerable new buildings, with high chimneys, and the noise and stir of various mechanical operations, all indicating a colony of the children of industry, and the power of the princes of commerce. Whether such a sight is a pleasant one or not, it is a new one, which may impart some attraction to it, and may be very agreeable to the taste of men who admire the progress of the country in the substantial art of producing what may be justly called "hardware." Twenty years ago, there were no railway lines at Masbro'; a new building was scarcely contemplated. Vast volumes of flame issued from the blast furnace at the Holmes, and the little cottages were occupied chiefly by workmen there employed. To the right, a college for the education of dissenting ministers was surrounded with trees and fields; but business seemed to centre only at the ironworks originated by the Walker family. Our Photograph may appear to have something of the fanciful about it, but we must state that, whatever may be the dress adopted, the facts are exactly as now placed before the reader. It may not be improper to state that the novelist has been in the neighbourhood. The principal characters and most interesting scenes in *Jeanie* were drawn in the vicinity of Masbro', called "Rotherwood and Conisbro'."

So early as the year 1160, Richard de Busli granted to the monks of Kirkstead, in Lincolnshire, sufficient land for mining purposes, at Kimberworth, a distance of less than a mile from Masbro' Station, and ordered the erection of ironworks, for smelting ore and forming it into bars. These works were of small dimensions in comparison with the great ironworks founded at Masbro' by Mr. Samuel Walker. This gentleman was an orphan, without means and with little education; but, after various reverses, he succeeded, along with two of his brothers, in establishing the most flourishing trade then known in Europe. Many large bridges, including Southwark Bridge, in London, were cast at the iron foundry belonging to the Walker family, at Masbro'. But a vast amount of business was transacted there during the wars of England with America and France. At this time a circumstance occurred which excited a vast sensation in the country. The remittances from the War Office were forwarded by the mail coach to Sheffield, and from thence by a youth who rode single horse to Masbro'. On one of these occasions it appeared the mail had been followed, and the post-boy was waylaid on Attercliffe Common: he was pulled off his horse, and the letter containing a large amount for the Walkers was stolen from his bag. The youth's statement was that only one person appeared in the robbery; that no violence was used; his mouth was tied with a cambric handkerchief, which was left with him. On examination, it was found marked with initials; this was the only clue to the discovery of the thief. A woman of fashion owned the handkerchief, and swore to its being taken away by a person whose name was Spence Broughton, a man of very respectable connection, and with a family of his own; but, having departed from the paths of virtue, the consequences were difficulties, which he sought to extricate himself from by the unjust act which has been related. However, on the evidence of this woman he was convicted at York on the charge of highway robbery: the sentence was that he should be hung at the place of his trial, and his body should be suspended in iron at the spot where he had committed the crime; and so it was: well do I remember seeing the bones of the criminal awayed from side to side, the melancholy spectacle only rendered visible by the light which issued from the blast furnace at Masbro', which belonged to the Walker family.

At the time of the American war, the cast-iron business, in the hands of the Walker family, was a very profitable engagement. Numerous kinds of talent found employment at their celebrated iron-works; and their liberality has been recorded by very numerous traditions, and the most substantial facts. But apart from the vast amount of riches they accumulated, the great blessings they conferred on their workpeople in advantages of a temporal and religious order, and the encouragement they gave to men of steady persevering habits, were very conspicuous. They also left a legacy, which posterity has improved in many ways, and they commenced a trade which they never could have anticipated in the forms in which it now appears. Cannon and bridges are now cast in other parts of the empire. The Walker family, almost extinct, have resigned the energies once employed in those great undertakings. Their workmen have passed from the scenes of their labour and their pleasures; but were neither unremembered nor forgotten. But a change has taken place which, instead of desolation, as sometimes is the case when a large firm is dissolved, is in this instance prosperity; a trade has been established which is gaining a very surprising celebrity. The extensive manufacture of stove grates, in beautiful designs, chased and ornamented, which are the fittings of the finest steamers which leave the English coast, and others which are placed in the palaces of our nobility, and in the establishments of the princes of commerce, is now carried on at Masbro'. It is right to give talent its due—to praise individual invention and personal success; but the Photograph in its first colouring—in its true and natural shades—gives out the Walker family as the grand idea, the seeds of the present harvest, and the planters of the numerous colonies of successful employers and happy employed; and the participants of the success now experienced by manufacturers in Rotherham and Masbro', Swinton, Chapeltown, Elsecar, and many other places within 10 miles from the original ironworks commenced by Mr. Samuel Walker, are, undoubtedly, in a great measure indebted to his worthy successors for the idea which gave their plans existence, and helped their progress.

It would be improper, under the head of the Cast-Iron Trade, to neglect another branch of business, which has been highly injurious to the commercial repute of this country; but I must in this picture the trade, and omit the introduction of names.

THE CAST-IRON TRADE IN CUTLERY.—However competition may have been regarded as a benefit to the consumer, there is a point at which it proves a direct injury—that is, in the case of what are called small castings, such as knives, forks, and scissors. The articles were introduced for the purpose of supplying a cheap market, and enabling the manufacturers to compete with each other as well as with the foreigner, who could avail himself of cheap labour; the difference in the price of common steel and cast-iron is not so great as the saving effected by the processes, which are prevented by the form the cast-iron article receives from the mould or sand from which it is obtained. In the table-fork, five distinct processes have to be gone through before it arrives at the same shape which the casting operation furnishes. These processes cost, on average, about 4d. per dozen. The cast fork can be sold ready for the handle for about the same money. But to finish the steel fork to the same point, 6d. per dozen more must be expended; so that the saving in manufacture is not less than 60 per cent. The appearance of the cast article has often deceived persons who have had considerable experience in trade; so much so, that I well remember the story of a large buyer of cutlery who had purchased cast-iron scissors for steel ones, and to guard against being again deceived, he examined the blades to see if there were any strakes in them. These were always found in steel articles; but they were damaged which rendered them what are called "wasters," so that the first evil was but little repaired by the alteration he made in his plan for the selection of cutlery goods. A very particular acquaintance, whose whole course and circumstances I have perfectly understood, says he was for some time, in consequence of competition, obliged to substitute a cast article for a steel one, and even then could not obtain a common working-man's remuneration. By a plan adopted in its finish, no person could distinguish it from the genuine; but should the purchaser have the ill-luck to let it fall on the flag stones it would have broken like an article made of glass. Such are some of the evil consequences of the cast metal trade—some of the fallacies of the system of over-wrought competition. Nothing will answer so well as a legitimate system of business; and nothing will so well represent the commercial greatness of the country as the production of articles which can be fairly offered for the purposes they are required to accomplish.

It may serve an important purpose if I add that no person engaged in the manufacture of cast-iron cutlery has accumulated property; that their warehouses are generally miserable places, and their workshops no better than cattle sheds. Whatever injury has been produced, not a single instance of private benefit appears as its results: even Mammon, so easily

propitiated, has withheld his gifts from this class of worshippers; but the grave has received into its dominions hundreds of workmen who might have been still alive, but for the pernicious dust inhaled in grinding cast-iron forks, scissors, knives, &c. Names, for obvious reasons, have been suppressed, but facts have been recorded which are every day receiving fresh confirmation; and if this branch of business could, by any means, be discontinued, personal advantage would be only second to national credit.—JOHN BARNETT.

CORNISH MINE PHOTOGRAPHS.—No. XXI.

"THE KNAVISH CAPTAIN."

It is frequently thrown into the teeth of mine inspectors that they never give unfavourable reports—that he who "peppers the highest places the palate the best." It may appear so to some, but it is not the duty of the inspector to publish the document he may draw out from his observation; it is only his province to hand it to his employer, and let him do what he pleases with it. Many a withering report is either consigned to the flames or for ever hid. At the commencement of these papers, we portrayed things and people as they are and were; then we were told we painted everything *coulour de rose*. We were only doing our duty, and in pursuance of that we at length come to the bad as well as the good. In describing them we shall not swerve from our intention or our path, but go fearlessly on, turning neither to the right hand or to the left. On this occasion we shall keep our incognito, though the characters (for there are more than one) are well known in Cornwall, as well as in London, where they have good reason to be.

One of these gentry, some few years since, visited "town," where his specious language, exemplary conduct, and pious demeanour soon won for him golden opinions and golden sovereigns withal, wherewith he journeyed to Cornwall, and commenced a mine with a genuine Cornish name, which we shall call by the initial of C— Mine.

Well, Wheel C— went to work: tin was soon found; considerable quantities were raised and thrown over the burrow at a certain place as rubbish, though rich enough to pay—the reports from the mine continually stating that tin was always being discovered and raised. The fact of its being so was well known in the county; the shares advanced in price continually; the captain's friends bought largely into the mine. When the demand from Cornwall was known in "town" to be a "great fact," the "town" thought it the very nick of time to buy, but shares were not to be had. Tin was now returned, a considerable balance realised, shares rapidly advanced in value, a dividend was declared, and another at the next quarter's meeting promised by Capt. Jemmy; but at the next account, instead of a dividend, a call was necessary, and was made—not on Capt. Jemmy's friends, but on the London dupes, who had eagerly purchased shares in a "dividend mine!" Soon afterwards it was found that the engine was not of sufficient power, and not in the right place. Capt. Jemmy sent in his "resignation" to prevent being kicked out, the "bal" was stopped, and the materials sold. Capt. Jemmy attended the sale, and to the surprise of every person present bought rather largely of the tin-dressing materials at a cheap rate. When the halvans or refuse came to be sold, Capt. Jemmy was the purchaser. He well knew where the tin that ought to have been returned for the adventurers was thrown, and there he commenced active operations. Having the apparatus on the spot, and his family being brought up to the business, and working on the mine, they soon made handsome returns from that which he had previously represented would not pay for dressing. This source of wealth lasted for some years. It is said he realised many hundreds of pounds from this "speculation," as he called it—a piece of knavery worthy the most "cute Yankee" in that land of sharpers.

Time rolled on, the past history of the mine forgotten in "town," or lost in its maze of misfortunes and more gigantic swindles, and the name of Capt. Jemmy quite out of mind. That same fell destroyer exhausted the captain's halvans, and the captain (now a man of substance and sanctity) again revisited the City of London, armed with a well-written prospectus, as well as maps and plans of a mine; the name had been most judiciously altered, so as to prevent the shadow of a shade of suspicion. It was proved beyond controversy that the mine had sold considerable quantities of tin; the smelters' bills showed it, and all this from the mere refuse of the former workers. Affidavits of the men proved that they only left their work when they were actually driven out by the water—that the last month they worked they earned capital wages—that the engine was too small for the mine, and was in the wrong spot properly to develop the works. All this, backed as it was by a venerable personage who was known to be in the "connection," by his travelling certificate, as a preacher of the gospel, soon again procured him another company for the late C— Mine. Immediate measures were strongly urged. There was a most capital second-hand engine, as good as new, to be sold, and only two or three miles off. Tin was high, and nothing could possibly interfere to mar their prospects: so far so good. A deputation was invited; a deputation came, saw the mine, took the miners' "depositions," viewed the capital engine and the captain's late works, which he open-heartedly offered them at what they cost him, though he had wonderfully improved them at a considerable expense. The "deputation" (who knew as much about what they saw as if they had studied a transit instrument instead of a steam-engine, or of the proper situation for a mine, as if they had been requested to point out the proper place for a new planet, or of the value of Captain Jemmy's plant, as if they had been asked to name the worth of the new picture in the National Gallery) returned to London, highly delighted with their visit, and with their captain, who they assured their fellow-directors was a pious, straightforward man, every way suitable to their purpose, and worthy of all confidence.

On this report orders were at once given to purchase the engine, and prosecute the mine with vigour, which was effectually done. A capital engine-house soon reared its white-washed presence in the proper spot, the captain enjoyed a handsome salary, his family found employment on the mine, the force of throwing away halvans was enacted over again, some fault was found with the mine and its management, the shareholders in disgust stopped the "bal," the captain bought the refuse and the dressing apparatus he required, and has returned hundreds of pounds profit by his second "speculation." The halvans are now very nearly done, and as the third attempt is said to be lucky it will doubtless be tried, unless the captain see this article, when he, being aware his motions and actions are known and pretty closely watched, may refrain, as he ought, from such malpractices. If the mine had been honestly conducted, there can scarcely be a doubt it would have been remunerative. Should it be again offered, we shall not fail to ascertain if Capt. Jemmy be in connection, when even his sanctity will not save him from exposure. The cloak will be stripped off, and the whitened sepulchre (we beg pardon, we mean new engine-house in the proper place) shall be exposed. The author's name is well known to this worthy, and he is perfectly welcome to these remarks, and to this piece of advice—"Go thy way, and sin no more." Such, gentle reader, is a true Photograph. Have we redeemed our promise? Is not this a knavish captain?

We know another instance, in which a red-faced fellow, with stentorian lungs, and with a bouncing rough impudence that in London was mistaken for bluff honesty and peculiarity of manner, actually sold a mine in the City before he had seen the spot, or knew where he was to look about for one. At length he fixed on one; 1000*l.* were sent to him as the price to be paid for his discovery, as well as a goodly amount of "free shares," which he at once sold at a quarter of the specified price at which they were to be offered to the public. By these means he netted 1500*l.* in a few months, in addition to his salary, and was looked upon as a shrewd, clever fellow. At last the mask fell; the shareholders found the true character of their pretended friend, that the affected vulgarity was not the bluntness it appeared; that all these appearances were assumed, and that in reality he was a drunken, ignorant knave.

It is a melancholy task yet to draw other portraits of similar subjects, but, however unpalatable, justice must be done; we therefore proceed. A certain captain possessed a mine of untold wealth; the returns were something absolutely fabulous. At length, a noble lord was induced to join the speculation, and allow his name to appear. The company was to be divided into a large number of shares, so as to render the bid objection, a call, absolutely impossible. The wily captain modestly claimed one-fifth of the shares, and 1000*l.* for work done and the lease of the mine, for which he had paid the sum of 100*l.* After the appearance of the lord's name in the list of directors, the shares, which had been previously but little in demand, were rapidly applied for, when the wily captain suggested that, as they could not possibly ever expend their large capital, it would be true wisdom to lock up the quarter part of the share until they rose to a handsome premium, which they positively must do as soon as they were in a

position to make their enormous profits evident to the public. An announcement accordingly appeared in sundry papers, stating that no more shares in the mine would be issued, a sufficient sum having been placed in the hands of their bankers to meet all possible contingencies. The bait took, the place was besieged by applicants, the shares soon went from 1*l.*, and were sold at 3*l.* to 3*l.* 6*s.* each. The captain, since none could be had out of the office, "obligingly" spared a few of his free shares at these quotations, to his most particular friends, however, giving his former customers the preference. By these means he sold all his shares at a premium, and left the country. A few months showed the whole matter to be a rank swindle, meant "but to betray." Many lost their all in this barefaced robbery, and can painfully testify to the facts of the case, as it is and ever will be alive to their memories, the splendidly engraved scrip being the only thing they have to show in lieu of their bankers' cheques, or their hard cash.

Another picture, and we have done. In this case, also, the appearance of extreme sanctity, good address, grey hairs, and a pair of green spectacles, did wonders. This rare performer affected to have become too old for underground toil, and was, therefore, about to undertake the still more difficult but less laborious task of "mine manager," which would afford him a much better opportunity of seeing things were properly managed. With this view he was determined to commence, *de novo*, a concern he had for years had his eye upon, but which his late engagements had obliged him to defer entering on; he had, however, relinquished all in favour of his favourite scheme (the fact was, he had been discharged for dishonesty), which he felt confident would afford provision for his declining years. He obtained the grant of a lease of an old mine set, and, in company with a confederate, actually played off the horse trick. The silly dupe who purchased the set found himself minus the sum of 500*l.*, and in possession of a most splendid (on paper) mining set, with a name a skilful Welshman would be puzzled to decipher, much less to pronounce. The final settlement and handing over the cash occupied a week or two, an arrangement no doubt agreed on by the two knaves. When the second was called upon to take the property off the dupe's hands, his rejoinder was, "Oh, you've been so long about it I've laid my money out in another spec. I haven't got five hundred pence, much less pounds. You've got a valuable property, so be quiet. I'll help you to sell it a profit, if I can." On appealing to the other, his reply was, "You applied to me, not I to you. I know nothing of your arrangements. The property is genuine and good, if you choose to work it; I haven't the capital to do it, and I told you so. You've got the property, and I the money, so both ought to be contented; I am. You may go to law as hard as you like: I defy you."

Our task is now complete, and having shown up so many in their true colours, we may perhaps be allowed again to return to subjects of a more agreeable and useful character. When called upon, we felt it our duty to give the shadows as well as the lights of Cornish life amongst miners. Where there are so many it would indeed be strange if all were virtuous: it would be against a natural law, and we do not claim that even for Cornish character, much as we rejoice in its genuine purity and magnificence.—GEORGE HAMWOOD.

MINE SPECULATION IN AMERICA.

BOSTON, Oct. 6.—With so limited a number of capitalists who have faith in the remunerative results of mining at Lake Superior, it is not surprising that a considerable decline has taken place during the past four weeks. Speculation in mining shares has ceased, and the quotations are believed to be below their actual value. The returns from the mines for Sept. are not yet at hand. Ingot copper is held at 25*c.*, four months, without sales.

PITTSBURGH AND BOSTON (CLIFF) declined to \$180. Total product for nine months, to Oct. 1, 1857, against 1371 tons for the corresponding time last year.

MINNESOTA.—The announcement of the postponement of the dividend to Feb. 1, 1858, hitherto declared for Nov. 1, depressed the stock to \$55. The necessary employment of the floating capital for providing supplies for the mine, and for the payment of wages, the impossibility of getting their bills receivable discounted in the regular way, and the inability to sell their copper for cash, have rendered this step unavoidable. With no bad debts of importance, and with 2,000,000 lbs. refined copper on hand, or to arrive in the next 60 days, with a mine proved up for some years ahead, and with a management inferior in ability and integrity to none in the country, the shareholders have every guaranty for continued and permanent success. Product for nine months in 1857, 1554 tons, against 1399 tons for the same time in 1856.

DUFFY, PERKINS, AND SAYLES.

MINING IN JAMAICA.

CLARENDON OF JAMAICA.—STAMFORD HILL MINE (Oct. 24).—Since my last report on the 9th, no very particular alteration has taken place in any part of the mine. We continue to press forward as fast as we possibly can with our different operations. The ground in the shaft sinking below the 46 is still rather troublesome for working; we are, however, progressing with this work, and expect, if all be well, to be sufficiently deep for the 38 cross-cut in a short time. The lode in this part is at present carrying a quantity of green carbonate of copper. In both the north-east and south-west ends, in the 46, the lode continues to present the same appearance as of late, and is still being worked. The lode in the 46 is more or less covered with mud, and with a management inferior in ability and integrity to none in the country, the shareholders have every guaranty for continued and permanent success. Product for nine months in 1857, 1554 tons, against 1399 tons for the same time in 1856.

AT WHEAL JAMAICA COPPER COMPANY meeting, Oct. 23, the accounts showed a balance in favour of company, including outstanding calls, of 356*l.* 13*s.* The report stated that the various stopes were yielding good returns. In the dressing department they were daily adding to the amount of ore ready for shipment. Since the shipment of 11 tons of ore on the *Pioneer*, mentioned in the last report, the committee had been enabled to make a further shipment of 17 tons on the *Polka*, making a total export of 190 tons to date. There are also now on the dressing-floors and at Retreat about 15 tons of dressed ore, which will be sent to market as soon as practicable. A special meeting was called for Nov. 8, to take into consideration the financial position of the company, in consequence of the attempt to raise additional capital in England having failed through the depressed state of the money market.

AT ELLERSLIE AND BARDOWY, the Salisbury Plain Mine bids fair to be a most valuable property. The lode is of great power, carrying a branch 3 ft. wide, of yellow sulphuret, and this width is found to increase in depth: 4000 shares had been purchased at par by residents in the island. At a meeting of the shareholders, held on Oct. 23, a very encouraging report from the committee of management was read, from which it appeared that the total shipments of July ore was 25 tons, realising from 16*l.* to 17*l.* 11*d.* per ton net. Captain Arthur mentioned that Parry's cross-cut for the 38 cross-cut, from the 46 to the 38, leaving 30 fms. more to intersect the 4 ft. lode, which, if the ground continues as at present, soft and easy for driving, he expects to accomplish in the early part of January, 1858. The balance-sheet showed a balance in hand on Oct. 1 of upwards of 2000*l.*, a fund ample for ten months' expenditure at the present state of the works; but as the committee are desirous of sinking the shaft below the base of the hill, 5000*l.* will be required in addition to the above balance for the purchase of the necessary working of the mine. Offers had been made, by gentlemen of eminence in mining operations, to inspect the mine, but they considered the condition and results from the mine the best report they could present to the shareholders.

AT HORN (lead), the reports are in the highest degree satisfactory. The lode in the 30 is of enormous width, disclosing one of the most stupendous mineral deposits ever seen. We shall be much surprised if this mine in a year or two does not take its stand among the richest lead mines of any part of the world. It is being worked with laudable vigour and with unexampled skill.

RIO GRANDE MINING COMPANY (Sept. 28).—The lode (of which I sent you a stone) in back of Rio Grande is looking well, and I have broken out some good saving work at the pit's mouth: we have 2 tons 10 cwt. of undressed ore. We have another large lode in the back of Rio Grande, interspersed with purple copper ore, and, judging from its course, I think it is No. 1.—Oct. 5: You wish to know if the lode in back of Rio Grande is worth pushing. I should say, from the appearance of it now, that it will pay handsomely for working. There are other indications in the back of Rio Grande which look very promising. I sincerely hope you will be round very shortly to re-set the mine, and then the directors will be able to judge for themselves. I believe I can show them as much copper ore as can be seen in any one mine in Jamaica.—Oct. 9: The mines are looking well, and I am breaking good ore from the back of Rio Grande, bottom of No. 3, and Brookdale.—Oct. 12: We are still working on Brookdale, where we are breaking rich copper ore. We are also working in bottom of No. 3, in which place we have driven over a good lode of copper ore, about 5 fms. in length, with a rich lode in the end. The indemnity of the weather has prevented the committee, appointed at the last meeting, from proceeding on their intended visit of inspection; but arrangements are now being made with the view to carry out this object as early as possible.—R. HASTY WILSON and Co.

STAMPS MACHINERY.—Within a few days past there has been erected, and put on trial, at the Cliff Mine, Lake Superior, a new combination, patented by Mr. Samuel Hodge, of Detroit (late of Chacewater, Cornwall), for raising stamps—heads. This combination, for its simplicity and economy, commends itself to all interested in stamps machinery, and especially to those who desire a limited amount of stamp power at a moderate expenditure of capital. Mr. Hodge uses in his combination a head and iron stem, weighing together 1000 lbs. The head is raised by the friction of two wheels acting on the stem. The fall is caused by the removal of a portion of the periphery of each wheel. This combination gives a uniform fall to the head, which has been long required as a desideratum by mining men. The machine now up at the Cliff Mine has a fall of 3½ ft.; the ordinary stamps will only average 1½ in. when properly attended. I think Mr. Hodge's machine is well worthy the attention of mining men.—Detroit, Michigan, Sept. 28.

PLYMOUTH LITERARY AND SCIENTIFIC INSTITUTION.—We regret to announce that the whole of the apparatus necessary for the lectures at this institution is about to be sold by Messrs. Skardon and Sons. The value of the articles offered for sale is little less than 2000*l.*, and consist of electric machines, voltaic batteries, powerful magnets, electric light, and motive power apparatus, &c. This sale can only be regarded as another instance of the decline of taste for literary and scientific institutions. It is stated, with reference to this apparatus, that the lectures which have been delivered with its assistance have not returned 1 per cent. upon the outlay, so scanty has been the attendance, although such lectures ought to have been of mutual benefit to the public and the lecturer. However, Mr. Hodge, the owner, has resolved to sell, and to all who desire to possess a complete apparatus adapted for a course of interesting lectures, there will be an excellent opportunity to purchase, and everything appears to have been selected with the greatest care.

Original Correspondence.

TREATMENT OF GOLD AND SILVER ORES.

Sir,—In my last letter, I stated "that not a single one of the new machines and processes which have been brought before the notice of the public, during the last 10 years, has been found of any value on trial," and that "the old-established processes are being gradually introduced into the new establishments."

It must not be inferred from this observation that no improvement has taken place in the old processes; on the contrary, improvements are constantly introduced in the manipulations. For instance, the stamps—the system of covered incline planes in their front, and also the planes for the final washing in the lavaderos—have been much improved, as compared with what they formerly were at Marmato; and thus the former poor refuse can now be made available, the entire cost of treatment per ton not exceeding \$3, and the remains constantly operated upon, until they become completely consumed, leaving nothing remaining. Again, at the silver mines of Santa Ana, instead of reducing ore of 100 ozs. of silver per ton with 10 per cent. of salt, according to the old system of barrel amalgamation, ore of 250 ozs. of silver per ton, with only 5 per cent. of salt, are now treated with much better results. The operation has been slightly modified to effect this improvement in cost and produce.

Many other improvements might be introduced in our foreign undertakings, and thus render a greater number of them profitable, if companies and their directors were to leave them peaceably to the management of practical men, and not allow incompetent persons to meddle with them. Perpetual interference by parties who know nothing of the business necessarily brings them to ruin and winding-up. Some of the best establishments, both at home and abroad, have been brought to naught solely from this cause. What is still more painful to contemplate is, that those who do all they can to prevent such disastrous results by timely warning are often not only badly treated, but attempts are frequently made at meetings to injure their characters; and also, I am sorry to say, people are sometimes employed to disseminate calumnious reports, so as to make it appear that things went wrong from different causes.

Necessity is, generally speaking, the mother of invention. Let us trust that the present critical time, which requires good management and economy to ensure satisfactory results, will be the means of correcting many of these evils, and that every establishment in future worthy of support shall not fail for the want of proper attention and practical management, or in consequence of their being left in charge of unqualified managers. It is much to be regretted that an establishment like the Mexican and South American should be wound-up, in such a rich country as Chili, where it had such excellent prospects.

Nov. 18.

EVAN HOPKINS.

THE MINING INTEREST, AND THE SMELTERS' MONOPOLY.

Sir,—In the *Times* Berlin correspondent's letter, in this day's paper, there are the following remarks:—"In Moscow a joint-stock company has been formed for dealing in metals and ores, the proposed object of which is to liberate the producers of iron from the power of certain monopolists, who have hitherto made a very unscrupulous use of their exclusive power. To this and the company intends to erect smelting works and foundries."

The miners of Devon and Cornwall have been long and severe sufferers from a similar evil; and I, as one of them, would call the attention of the more wealthy companies to the remedy thus very wisely adopted in Russia, as being thoroughly well adapted to the present circumstances and dealings of our English mines with the smelting monopolists of this country. A deputation from the leading mines should at once hold a meeting, for the formation of the company required, and the result will be, on such an institution being established, highly beneficial to the mining community in realising the returns for their outlay, of which they are now so unjustly deprived.—Nov. 17.

A. B. G.

[The establishment of the joint-stock company in Moscow was first announced by us on Nov. 7, and further remarked on in the *Journal* of last week. Our correspondent and his friends should agitate the matter, and endeavour to get a meeting convened, that the possibility of forming such an association as that referred to may be considered.—Ed. M. J.]

MINING IN CALIFORNIA—THE ARIZONA COPPER MINE.

Sir,—I have read the several articles that have appeared in your *Journal* relative to the Arizona Copper Mine, in the Gadsden Purchase—those written by "Anglo-Saxon," and the answer thereto, by Mr. Allen, the president of the company. As a friend of both parties, I desire to enter the list, and endeavour, if possible, to set the whole matter right before the British public. It is true that the title to a portion of the mine is in dispute, that the card which appeared in your *Journal*, signed by the opposing claimants, was also published in this city; that the said claimants intend to test their rights before the legal tribunals of the country at some day in the future, unless a compromise be effected; that the manner of obtaining possession of the mine by the so-called Arizona Company is substantially correct; that the right of said claimants was only to the single vein that they had opened and partially worked, which was not the case of the mine, which at the time appeared to be not till after the Gadsden Purchase had become the property of the United States that the Americans took possession of the mine, which at the time appeared to be quite limited in extent, but subsequently was found to extend over a tract of one mile square, and to consist of more than one hundred rich and extensive veins; that under the pre-emption laws of the United States, which entitles each male citizen to one quarter section, the parties who took possession had the right to pre-empt the four quarter sections, and so exercised it; that, nevertheless, it would have been just, equitable, and right for the parties in possession to have compromised with the opposite claimants, and having failed to do so then, they should do so now. If this should be done, and no good reason exists why it should not be, I am assured, on reliable authority, that this mine would be one of the best properties in the West.

Both of your correspondents, therefore, are right, with the exception that the communication of "Anglo-Saxon" leaves the impression that the Mexican claim extends to the whole of the copper field embraced in one mile square, whereas, according to Mr. Allen's communication, their claim, if good for anything, is only to the original vein worked by them, which is only about one hundredth of the whole number already discovered.

Allow me, in conclusion, to remark that the mine is worthy the serious consideration of British capitalists, always provided the outstanding title can be quieted; that this can be done admits of no doubt.—*San Francisco, Oct. 3.* J. H. PARKER.

MINING SPECULATION—ENGLISH AND FOREIGN.

Sir,—It has now become a question in the minds of many whether the panic (which has been so long looking forward to, and the anticipation of which has so paralyzed speculation, that it has been nearly impossible to induce the public to support any description of undertaking, no matter how favourable the prospects, nor how legitimate the enterprise) has commenced, or whether we have still to pass through another trying period before we enter upon that era of great commercial prosperity which invariably follows a time of direful commercial depression.

The commerce, not only of Europe, but of the whole world, with the exception, perhaps, of Russia, has long suffered from the great difficulty which has been experienced in obtaining capital for the development of undertakings of vital importance in supplying the commercial world with materials for their operations, and England has been the last to feel the effect of this pressure. It is true that the difficulty in obtaining money here has been, perhaps, greater than in many other quarters; but this cannot be attributed to any want of capital, or to any internal causes; it has arisen simply from its being necessary to take precautionary measures to prevent a drain from this country, which would, ultimately, have been productive of the greatest evils. English capital would have been embarked in Russian, French, American, and other foreign securities to a far greater extent than at present; and as the credit of the several countries became shaken, and the value of the securities fell more than they did by their ventures in California and Australian gold mines.

The crisis must now be considered to have passed in this country, and, consequently, when the time arrives for offering money at a cheap rate in England there will be an ample field for every description of speculation, and the chances of success will, provided ordinary care be taken in the selection, be considerably increased. For a time, however, the price of money must be maintained, or it will speedily leave us for those parts where they are but just recovering from their panic; the consequence being that all the care which has been taken to protect the country in general will be entirely nullified, and that we shall at no distant day have a more calamitous state of affairs to bear up against than we have hitherto known.

A large number of companies have already been formed, or are in course of formation, for the development of the mineral wealth of Great Britain, Ireland, France, Germany, the Cape of Good Hope, and elsewhere; and the prospects, of success and the facilities offered by the owners for working are in some instances almost without precedent; but it must not be considered that because England has good mines, all mines in England will prove remunerative to the shareholders. Indeed, the very fact of a district having good mines should incite the intending speculator to extra caution, since, in too many instances, mines are brought under the notice of the public with nothing but their proximity to good ones to recommend them, and, frequently, when all the details are known, it proves utterly improbable that they should prove remunerative. Although these remarks do really apply in England, in foreign countries they apply with tenfold force, since too often the merits of the mine are correctly set forth, and the adjoining mine is remunerative, and yet there is deception which none but those acquainted with the locality could detect;—thus, a very valuable mineral tract is situated at the foot of the Alps, and has been worked by a company with great success, but now requires a little further capital, from 10000, to 20000, to further develop it, after which outlay no doubt the profits will be satisfactory. With the knowledge of these facts, the owner of an adjoining property, but situated at a higher altitude, and almost within the district of perpetual snow, ushers forth the value of his neighbour's property, and by these means induces the public to subscribe all he wants; but he does not say that, with regard to both properties, to neighbour's success is that he can produce metal on the spot, and send it to market in that state, whilst no other party can obtain smelting fuel at any price, or rather, except at a most disadvantageous rate.

The caution thus given does not proceed from any bad feeling, but simply to show that in some places rich mines are valueless, whilst in others poor mines prove remunerative; and also to show that, except in certain rare cases, it is more desirable to speculate in England—a country which we know—than to embark in foreign mines, without making ourselves thoroughly acquainted with the district where the mines are situated. There are, of course, many mines both in France and Germany, which would amply repay English capitalists for their outlay, but as they fear rather the exception than the rule, it would appear advisable for Englishmen to

put their faith in England—as it is acknowledged that English mines, as a whole, give quite a large profit as these situated in foreign parts, although the average produce of the ore in the latter may be considerably higher. A. MARSHALL.

NEW MODE OF WORKING STEAM-ENGINES, BY MR. T. MAY.

Sir,—The *Family Herald* of this week contains a notice of a paper having been recently read before the British Association, upon a new method of working steam-engines, for which provisional protection has been obtained by Mr. T. May, a copy of which enclose you, and also the prospectus of an invention patented by me on Sept. 4, 1855, upon precisely the same principle as therein reported, but containing many additional improvements, as regards the construction of steam, &c.

Should this statement happen to meet the eye of Mr. T. May, it must be well for him, before incurring further expense, to examine the specification of my patent.

W. H. JAMES, C.E.

NEW MODE OF WORKING STEAM-ENGINES.—By a paper lately read before the British Association, it appears that Mr. T. May has obtained provisional protection for certain improvements in the mode of working steam-engines. The boiler is composed of a continuous tube, which may be arranged in any efficient mode. The engine is applicable to any of the ordinary uses. Suppose it to be used in a factory: if it is required to reduce the power of the engine, in consequence of some of the work being thrown out of gear, this may be done in two ways,—by reducing the temperature of the boiler, or by reducing the quantity supplied by the water cavity of the slide valve. In the latter mode, the engine will work less expansively and with less pressure; in the latter, more expansively and with the same pressure at the first portion of the stroke. By this mode of working engine, safety, economy, increase of pressure, and compactness, may be obtained; incrustation prevented, and all possibility of priming removed.

POSTAL COMMUNICATION WITH AUSTRALIA.

Sir,—Your remarks in the last number of the *Mining Journal*, on the delay in the arrival of the Australian mails, will doubtless be the means of inducing enquiry as to the advisability of continuing the present system. When the Government intend to make arrangements for conveying the mails to Australia, it was stated that an independent line of steamers would be preferred, on the grounds that when conveyed via India the steamers did not always arrive at the required time. Now, the cause of the want of regularity in the arrival of the mails at Singapore from Melbourne is easily explained. Instead of employing large paddle steamers, screw steamers, with engines of from 300 to 350-horse power, were placed on the station, as if the Australian colonies were not worth better vessels. Now, the distance between Singapore and King George's Sound, through the Straits of Sunda, is only 2700 miles, and a powerful ocean steamer would run over that space in eight days, and to Melbourne in three or four days more. The more direct, and by far the best route, is via Ceylon. The distance from Galle, the southern port of that island, to the Sound is 3500 miles. The run, therefore, to Melbourne from Galle could be accomplished in 14 or 15 days, and as the Indian mails arrive as regularly as the Channel steamers, a quick and regular communication might be at once established between Australia and England. Some persons might imagine that the cost of placing large paddle steamers on that station would be too great, but they could not be aware that Government pays outwards of 11,000l. for each mail sent to Australia, and the same amount for every mail brought to England. Surely the Oriental Steam Navigation Company would undertake to convey the mails twice in paddle steamers for that amount, and in that case we might look for the arrival of the India mails with the certainty that each ship would bring the shareholders of the company which is so well paid for the use of a fleet of screw steamers, some of which are furnished with engines of just sufficient power of vessels for 700 tons.—*Salford, Nov. 17.* JOHN DE LA HAYE.

JOINTS AND CLEAVAGE.

Sir,—At the Royal Cornwall Polytechnic Society's meeting, I see by your *Journal*, Mr. Fox says, "It should like to know, in cases where the walls of mines were polished, whether the surfaces so polished were plain or irregular. They were often found to be striated or scratched, and he has observed in Wales instances where a high polish had been produced on the sides of a fault," and yet those sides were not flat, but, on the contrary, very uneven, horizontally and perpendicularly. In such cases it was evidently impossible that the polish could have been produced by the friction of the two rocks. It would be very interesting to receive from our miners any facts connected with the polished rocks of mines, and particularly whether the surfaces of such rocks were flat or irregular, having protruding and receding surfaces." Are these the slickensides to which Mr. Hopkins and Mr. Henwood refer? It appears, if it be so, the question is yet an open one, and by no means decided. If they are, as I presume, the true slickensides, Mr. Fox clearly proves the smooth polished surface could not have been caused by attrition, or rather friction, as illustrated by Mr. Ennor. This subject deserves further investigation, which it is evidently receiving; and I, Sir, for one wait with some interest Mr. Henwood's views on this subject.—Nov. 18. GEORGE.

MINING, AND LAWYER STEWARDS.

Sir,—Your correspondent, "G.," has little need of assistance to suppress the evil of which he complains. He appears perfectly capable of expressing himself clearly, but as the evil he regrets is becoming daily more common, a little help may not be unacceptable. How on earth can lawyers, or any other stewards, or landlords, tell where a shaft is necessary in mineral property? This is the miner's province, and he only can tell when by perseverance he has proved it to be so. No doubting or divining can dictate or point out this mystery. It is folly to throw obstacles in the way of prosecuting diligent and honest miners, who are not content with the small results as "G." alludes to are in expectation. Had such folly prevailed, would Canon Rogers have derived his splendid revenue from Trevelyan? Would the Cassels have received their princely revenues from their estates? They would hardly hesitate to allow shaft to be sunk in their parks, provided it did not disfigure the place, and even then, if necessary, it would be granted.

Let the Huxworth proprietor look to this neighbourhood, where (at St. Ives Conso) once little paddocks, worth only 5l. or 5d. per acre, yet, at 10l. per acre, for all that, yielded over 1000 tons of coal, and, at that, at the Providence Mine, Mr. Praed receives more than 1000l. per acre, less than an acre; and he will perhaps alter his determination. There is no reason why his land may not be equally valuable. St. Ives, Nov. 17. MINER.

CAPTAINS' JEALOUSY.

Sir,—It is astonishing how little minds are affected by little things, and jealousy is amongst the least of the little. This has been eminently displayed in this locality within the last few days. The captain of a mine whose produce has certainly disappointed the expectations of all concerned, was, without being understood by a party to inspect his neighbour's mine. What his report was I know not. What he has said in private I do know. And this, I know, that I have seen both their mines, and that the person condemning the one could not, if his life depended on the stake, show such a stone of ore (and tons of them are to be seen) from his own mine, or so fine a lode, though both are beautiful, and rivals for public investment. There is plenty of room for both. Then, why should the one at 9l. 10s., which price has reached 25l. 10s., begrudge his neighbour's advance from 15s. to 20s.? He upon such paltry, unworthy backing; it is a disgrace to the descendants of admiral, and to miners. If the party alluded to has any to sell at 15s. (he says they are worth 7s.), he may find a purchaser at the Hotel, St. Ives, by enquiring for— Nov. 17. INSPECTOR.

LADY BERTHA, AND ITS ADJOINING MINES.

Sir,—It is very gratifying to me, as it must be to those interested in the mines of this locality, to learn of the improvements which have lately taken place. The improvement in Lady Bertha was noticed in last week's *Journal*; it has since further improved, particularly in the 20 east, about 25 fathoms east of Moyle's shaft, where the lode is 1½ ft. wide, and nearly all the ore is good, and the character of the ore, which will warrant the most sanguine expectations, is of a fine quality, the character of cross-course, where it can be seen from 9 to 12 ft. wide, and pronounced by all practical miners to be the finest cross-course for mineral deposits that has been seen in the locality. In the 20 and west a good lode is being driven on; also a good lode in the wine sinking below the 20. The lode in the cross-cut in the 30 is large, being from 12 to 14 ft. wide, spotted with ore, and by driving a little east and west good veins may be found, and large returns made monthly or bi-monthly, as the case may be. North Tavy, which is nearly all the ore is good, and the character of the ore, and now the discovery of tin adds to its value, as it is a very fair working for one mineral the ore in some quantity must be raised, and the machinery is erected, and all being worked with water-power, it cannot but be a profitable mine as a proof of its tin-bearing quality, I found deposited by a rock in the Lady Bertha set, which are adjoining each other, 3 cwt. of tin pebbles, from the size of marbles down to that of shots. This 3 cwt. of tin possibly had been there for hundreds of years, and I found it, without any dressing, it was worth 60l. per ton. This tin was evidently raised from the set of North Tavy, Virtuous Lady, Wheel Bedford, Tavy Conso, and Lady Bertha, which proves the tin-bearing quality. Also the Lady Bertha cross-course passes through North Tavy, and large quantities of lead returned from the same, and in the course of working lead will again be raised from the mine. The Virtuous Lady and Wheel Bedford proprietors have the North Tavy lodes running through the entire length of their property. From the largeness of the lodes, and the geological features of the same—producing gossan, quartz, munda, and copper ore at surface, and having produced such enormous quantities of ore from such limited workings, it is only reasonable to expect vigorous prosecution to arrive at profitable results. I hope some day to have the pleasure of meeting some of our geologists, and have a survey of the banks of the Tavy from Devon and Courtenay Mine to Lowell Quay, where they will find some interesting formations of rock and mineral specimens, which will handsomely repay them for their trouble.

Tavy Conso has been working several years, and returned from 20,000, to 30,000, of value of mineral; they are now sinking the shaft to the 100, where, from the change of ground and extension of levels, it will be brought into, I hope, a dividend state. At South Lady Bertha the prospects are highly encouraging, and several tons of good ore are now lying at surface. These mines only want a little perseverance and energy combined to make them simply repay the proprietors for the development and outlay. Before I conclude, I must not overlook one interesting fact—that is, in the whole of the Tavistock district we have not one copper mine that is sunk or worked 100 fms. deep but is paying dividends.—*North Buckland, Nov. 19.* WM. GOS.

PORT PHILLIP AND COLONIAL GOLD MINING COMPANY.

Sir,—The meagre extracts from the despatches of our resident director at Melbourne were once on a time more voluminous, although I fear equally untrustworthy—vide the following extract from certain advices from the resident director, published in the *Journal* of Aug. 11, 1855:—"Mr. Thompson's (the mining superintendent) letter, received to-day, reports considerable improvement, and I have little doubt he is close upon the main deposit of tin and gold. I recommended him to try for this as quickly as he can, and follow it up, working upon the richest ground first. The poorer portions will eventually pay as labour gets lower, and we improve our method of washing, &c. A sample I brought down for assay of the tin ore, washed out during my stay, yielded at the rate of 96 ozs. 2 dwts. of gold per ton. This is from the ground we did not consider worth continuing to work at present, and will give the board some idea of the value of the ore when we get to the main deposit, which I have no doubt of shortly doing. I think we may now consider the mining establishment fairly started, with every prospect of a favourable result." The unlucky shareholders, however, have heard nothing further that is practically satisfactory respecting this main deposit of tin and gold ore, the poorer portions of which yielded by assay at the rate of 96 ozs. 2 dwts. of gold per ton. And this grand main deposit of tin and gold ore, I fear, has been lost sight of, and the shareholders are told of a tin ore, which the Marquis purchased, in 1855: "But which grand deposit of silver ore, up to the present

time, has been equally barren in profitable results; for the Purina Hill, "that most costly pasture hill in the whole world," containing the Purina Mines, is yet in debt to the Marquisita Company on its "working account." I really, Sir, as a shareholder in each company, begin to fear that it is necessary, in order to arrive at a right conclusion, to read back wards the official reports, &c., issued by the above-named boards.

Charles-street, St. James's, Nov. 17. CHAS. RICHARDSON.

DIFFERENCE AS REGARDS THE DISQUALIFICATION OF JOINT-STOCK COMPANIES.

MADE BY THE 7 AND 8 VIC., c. 110 (NOW REPEALED), AND THE 19 AND 20 VIC. c. 47.

Sir,—As the above matter seems to be a point of some public interest at the present moment, I need not, I hope, apologise for trespassing on your columns, while I point out the difference in question. By the 29th section of the 7 and 8 Vic., c. 110, it is enacted (*inter alia*):—

"That if at any time any director cease to be a holder of the prescribed number of shares in the company, or shall become a bankrupt or insolvent, or shall have suspended payment, or compromised with his creditors, or be declared a lunatic, and shall be unlawful for any such director to continue as a director, or to act as such, and the office of such director shall be, and is hereby declared, vacant."

By the 47th clause, table B, of the 19 and 20 Vic., c. 47, the disqualifications of directors are as follow:—"The office of director shall be, and is hereby declared, vacant."

If he holds any other office, or place of profit, under the company.

If he becomes bankrupt or insolvent.

If he is concerned in or participates in the profits of any contract with the company.

If he participates in the profits of any work done for the company."

By giving a place in the *Journal* to this communication you will much oblige

Charles-street, St. James's, Nov. 18. CHAS. RICHARDSON.

Meetings of Mining Companies.

RHYMNEY IRON COMPANY.

The annual general meeting of shareholders was held at the office of the company, Laurence Pountney-lane, on Wednesday, Mr. E. J. HUTCHINGS in the chair. The usual preliminaries having been gone through, the directors' report and statements of accounts, of which we subjoin an abstract, were submitted.

The trade account showed—	
Advance to Buchanan and Co.	£ 23,034 10 7
Stocks taken June 27 (including mineral raised, iron manufactured and unmanufactured, 63,162 15s. 5d.; plates and rails on tramroads, 35,544 15s.)	111,575 6 8
Amount due to company for iron	29,933 4 7
Shares in Rhymer Railway	6,625 0 0
Bills receivable	£40,290 13 9
Cash at Glynn's	11,044 2 11
Ditto at works and Merthyr Bank	2,173 2 11
Ditto at London office	7 15 8
Total	£224,683 1 4

LIABILITIES.	
Balance from capital account	£45,036 18 0
Mortgage by Alliance Insurance Company	30,000 0 0
Advance from West of England Banking Company	12,500 0 0
Interest on mortgage	295 17 0
Royalty, claims and invoices unpaid, &c.	28,624 9 11
Deposit on contract for rails	4,500 0 0
Acceptances	34,214 18 6
Dividends unpaid	2,493 8 9
Balance (being profit undivided to June 30)	66,967 10 5
Total	£224,683 1 4

PROFIT AND LOSS ACCOUNT.	
Cr.—Manufacture account	£44,915 16 7
Stores and house coals—profit on sales	581 14 9
Rental—Rhymer, Beaupre, Butte, & Pontliffon	3,906 18 4
Buchanan and Co.	3,275 4 3
Brewery and farm	3,953 13 8
Profit on sales of purchased iron	1,820 2 5
Dr.—Charges at works: Managers and engineers' salaries, managers' percentage on profits, office expenses, wharf rent, taxes, bankers' commission, &c.	£ 7,605 12 3
London charges: Directors' salaries, interest on mortgage, and loans and discounts, office, travelling expenses, &c.	5,261 2 10
Leaving balance, being profit on the year	£45,886 16 11

The gross profit at the works was 49,327l. 17s. 4d.; the balance of profit to June 30, 1856, 33,744l. 9s. 6d., which added to profit on year, 45,886l. 16s. 11d.—79,631l. 6s. 5d. In Nov., 1856, and July, 1857, dividends amounting together to 31,784l. 10s. were declared, leaving 47,846l. 16s. 5d. balance of undivided profit at the present time.

The profit for the year ending June 30, 1857, amounts to 45,886l. 16s. 11d., being 13,624l. more than that of the previous year, and equal to about 7½ per cent. upon the capital of the company (or at the present market value of the shares 15l. per cent. per annum). Out of this sum 31,784l. 10s., or 5 per cent., has been paid in dividends, and 14,102l. added to the balance of undivided profit, which now amounts to 47,846l. 16s. 5d.

The iron manufactured during the year has been 41,512 tons, against 41,006 in the preceding year—a small increase, but with this important advantage, that this year's iron has been nearly all made without the aid of purchased "pig," whereas in the preceding year the company bought about 12,000 tons. The company's furnaces have, by reason of the repair and alterations of the blast-furnaces, produced in the last year 62,885 tons of pig iron, against 45,651 tons in the year ending June, 1856.

In November last, the directors reported the completion of the railroad for conveying materials to the top of the Butte furnaces; they have now to state that a similar road has been constructed and opened for the furnaces on the Rhymer Freehold. By these improvements a large annual saving will be effected, by the substitution of steam for horse-power.

The stock of ironstone has been materially lessened by the increased consumption in the blast-furnaces, and will in future be kept at a moderate amount, while the new openings will be regulated so as to take the place of those which become exhausted. The iron on the roads, making due allowance for wear and tear, is much the same in quantity as last year, but the change of wrought for cast-iron is being gradually carried out.

The opening of the Rhymer Railway Company's line to Cardiff has been retarded by unforeseen difficulties. It is, however, confidently expected to take place before the expiration of the year, when this company will at once benefit by the reduced cost of conveyance, and other facilities afforded by this improved communication with the shipping port. It will be seen by the annexed accounts that 6025l. has been paid on the 725 (107) shares held in the railway.

The balance to the credit of the rental is 983l. more than in 1856, resulting from a smaller outlay for repairs and new buildings. The trade of the brewery is fully maintained. The crop of hay is larger than in 1856, and the farm has been managed with economy. The erection of the new schools is proceeding satisfactorily.

In referring to the state of trade, and the operations of the company since June 30 last, the directors regret to state that the fall in the price of iron, which commenced in the month of April, has continued to the present time; and, as the proprietors must be aware, has been accelerated by the state of two of the principal markets for English iron—India and America—and the general effect produced upon the trade of other countries by the high price of money, and the commercial difficulties of the last few months. It is hoped, however, that this depression will not be carried to a very low point, or be of long duration, when the prejudicial influences alluded to cease to operate, as the universal extension of railways and the increasing demand for iron for other purposes warrant the belief that for several years to come the consumption will be fully equal to the supply.

At works many draw-backs have been experienced during the last four months arising from accidents, the unusual heat of the weather, and the scarcity of water. The make of finished iron has consequently fallen much below the average of the year ending in June last. Every exertion is being made to compensate for the time lost, and at present each department is proceeding satisfactorily. Under all these disadvantages it is gratifying to the directors to recommend a dividend out of the accruing profits for the half-year ending Dec. 31 next—11l. per share on each 50l. share, and 6s. per share on each 15l. per share, free of income-tax, payable March 1, 1858.

The directors have to report the resignation of Mr. Hubbert, who has been resident manager of the works for nearly five years. They have selected Mr. R. Johnson as his successor; and believe his acquaintance with the company's property and affairs, coupled with his experience in the management of Welsh ironworks, render him a very suitable person for the appointment. The directors retiring by rotation are Mr. P. Blyth, and Mr. Coles Child, who offer themselves for re-election.

NORTH BULLER MINING COMPANY.

A general meeting of adventurers was held at the office of the company, Austin-frasers, on Monday. Mr. MATHEW in the chair.

Mr. KING (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed.

A statement of accounts was exhibited, from which the subjoined is condensed:—

Balance last audit	£248 3 1
Mine cost and merchants' bills, July	133 3 6
" " August	99 0 0
" " September	96 15 7
Call of 10s. on 1024 shares	£577 2 2
Balance against adventurers	£ 5 2 2

The following reports, from the captain and pursuer, were then read:—
The 78 cross-cut is extended 3 fms. south of Louisa engine-shaft; at this point there is a large stream of water issuing from the end, which has drained the upper levels quite dry in this part of the mine. The engine is now working 8½ strokes, and drawing 190 gallons of water per minute, which leads me to believe that we are on the eve of interesting the south lode; when seen, I will apprise you of it as soon as possible. The 80 cross-cut is extended 37 fms. south of Wheel Uny engine-shaft; no lode as yet intersected. I estimate our cost for the next three months, with the present staff of men, to be about 800l., but in the event of cutting the lode productive, we shall be obliged to employ more men, which will increase our expenditure.

Nov. 14.—We have just cut the lode in the 78 cross-cut, south from Louisa shaft, but the gush of water from it is so tremendous, that no one can as yet approach it; it has, in fact, almost overpowered the engine temporarily, but this is owing to the engine being rather out of condition, which we shall quickly remedy. We have not yet cut the lode in the cross-cut from Wheel Uny. We are rather hindered at present from want of air.

Mr. KING concluded that, from the fact of the engine for some months past being idle, and now having cut into the water, the great chance was that they must have

very large lode. A similar occurrence took place at East Basset, in the 90; when they cut the lode they had a torrent of water. From the small number of adventurers in this mine, there being only 42, and the bulk held by a few, if an important discovery were made the shares would not rise by 1s. but by 10s. (Mr. King) had the satisfaction to inform the meeting that out of 101s., the arrears of call, 73s. had been received since the accounts were made up.

The report and accounts were then unanimously adopted. The Chairman stated that the mine was started in 1850, and that there had been 23 calls made, amounting to 141. 1s. 6d. per share. It was suggested that a call of 5s. 6d. be proposed, to make the shares 141. 10s. paid. A resolution making a call of 5s. 6d. was unanimously carried; as also one forfeiting all shares in arrears of former calls, if not paid within 14 days. The committee of management were re-elected, and the proceedings terminated with a vote of thanks to the Chairman, committee, and secretary.

ROSEWARNE CONSOLS MINING COMPANY.

The quarterly meeting of shareholders was held at the offices, Cannon House, Queen-street, on Monday.—Mr. E. W. SMITH in the chair. After the usual preliminary proceedings, the secretary, Mr. ALFRED JEFFREY, read the following report:—

I am sorry to inform you that I have been unable to go underground this week in consequence of ill health, therefore the report must be limited. A good lode will always speak for itself, and I am glad to say, this is the case here. The splendid samples of grey and black ore recently brought up, with the pile of ore at surface, must convince all who have any knowledge of a lode that this lode is of great promise. Looking at the soft and cheap ground, the little expense required for dressing the ore, and other advantages associated with the mine, including a large extent of tin ground, I consider few young mines present a more flattering appearance.—JOHN DALE.

I beg to forward you a statement of the work done for the last three months. We have completed the building of the engine-house and boiler-house, and put in the engine and boiler, put down the pitwork, sunk 10 fms. of the engine-shaft under the edit, driven 4 fms. of a cross-cut to cut the lode, driven 10 fms. on the course of the lode and 6 fms. of a cross-cut at the edit level, out the grey ore lode, driven 9 fms. on the course of the lode, sunk a winze from the edit to the 10, and also driven 25 fms. of the edit level, north from Lamb lode, towards the engine-shaft, and sunk the former shaft on the north lode 8 fms., driven on the tin branch 10 fms., which turned out very good work for tin; we are still cross-cutting, and have found several small branches of tin. Our engine-shaft is down 25 fms. from surface at the 10, the lode is averaging 3 ft. wide; at the western end we are obliged to suspend it until we get it dry, as the water is injuring the black ore; the end will turn out from 1 to 1½ ton of copper ore per fm. At the 10 east the lode will turn out full 1½ ton per fm., and for 6 fms. of the winze sunk, from the edit to the 10, the lode will turn out 1½ to 2 tons of ore per fm. We expect in four or five weeks to sample about 30 tons of copper ore, should we get the dressing department ready.—JAMES RICHARDS.

Since the last bi-monthly meeting the operations both at surface and underground have been carried out with the greatest expedition and economy, the engine set to work and shaft sunk 25 fms. from surface, a 10 fm. level extending east and west on the course of the lode, and a winze been communicated from the edit to the 10 at all these points, in a lode about 2½ ft. wide, producing about 2 tons of copper ore per fm., the 10 west is suspended for the present, until the shaft is sunk deeper, so as to drain the end, which done, the ore, being black and grey, can be saved. We have some ore at surface, and are now making preparations for dressing it. The operations on the tin branch have been attended with favourable results.—W. P. CARDOSO.

The Chairman observed that they would see from the reports that their prospects were most encouraging, and great credit was due to Capt. Richards for the energy he had displayed. In a comparatively short period they had a large amount of work done. He regretted much the ill health of Capt. John Dale, but it must be a great source of satisfaction to them to perceive that his report confirmed the cheerful prospects which were held out to them by the local agent. Altogether he thought they had reason to congratulate themselves on the progress they had made in such a little time, and as soon as ore was sampled he believed their cost would be more than met.

The following statement of accounts for four months, ending with cost for Sept., was then read:—

Balance from last account	£373 16 10
Costs and merchants' bills, June to Sept.	1402 11 0
Second instalment for engine	340 0 0
Petty disbursements, &c.	20 0 0 = £2136 8 8
Aug. 3. By call of 4s. per share on 4096 shares.	£812 0 0
Arrears received	0 10 0 = 812 10 0

Balance against the mine £1323 18 8

The liabilities are 1415s. 9s. 8d., and the assets 1034. 15s. 1d.—leaving actual balance of liabilities, 1314. 14s. 8d.

Mr. E. J. WILSON said he had great pleasure in moving the adoption of the report and accounts, and he perfectly concurred in the remarks which had fallen from the Chairman. He believed they had a good mine, and it was only necessary it should be worked with spirit and energy in order to make returns.

Mr. JOSEPH GOSWELL, in seconding the report, said that the account of Capt. Richards was most cheering, and their prospects for so young a mine gave them the greatest encouragement.

The Chairman said the next business they had was to settle the call. The balance of their liabilities over assets was 1314s.; this they must provide for, as well as for the cost of the next three months. He found this would absorb about 2000l. per month. Here he might observe to them, from what he had seen at surface, as well as he had heard from reports, that they trusted, would be satisfied with the work that had been done; he should, therefore, propose a call of 10s. be made.

Mr. JEFFREY said he represented a large number of shareholders, and he was anxious for the development of the mine, but he thought that if a call of 7s. 6d. were made, they would be able to carry on until returns of ore were made.

A division then took place, when it was ultimately resolved that the call should be 10s. per share.

The Chairman stated he had examined the register, as well as the accounts; the last had been previously audited by the finance committee; everything was in due order, and he had found them very satisfactory. Their local agent had worked very hard for them, and been most inadequately remunerated, and he thought it only a matter of common justice that his salary should be increased.

A discussion then took place, when it was resolved that the salary of Capt. James Richards should be augmented. A question then arose as to the increased remuneration to the assistant purser, and a resolution was passed that an increase should be awarded to him at the first sampling.

The retiring committee and auditors were re-elected; a vote of thanks was given to the Chairman, which being suitably acknowledged, the meeting separated.

CARVATH UNITED MINING COMPANY.

The general meeting of shareholders was held at the offices of the company, Old Broad-street, yesterday.—Dr. ALEXANDER BEATTIE in the chair.

Mr. FORTUNE (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed.—The following report was then read:—

Nov. 15.—The water is drained to the 20, and I have dialed the edit levels and the 10 and 20, both east and west of the engine-shaft. I find the lode in the eastern edit most interest the lode that has been worked on in the different levels west of the engine-shaft, which may be seen by reference to the plan; and I recommend cutting this lode in the 10, and driving on it both east and west; and this ought also to be done in the 20, 30, and 40, which will open out and prove this lode to a great extent. The lode in the eastern edit has a very kindly appearance for making tin at a deeper level; in the edit it has made rich deposits of tin, but not settled; it is mixed with gossan, spar, and prisms throughout; we have sunk in the bottom of the level, and there is a good lode for tin, but the water is too much to keep with manual labour, so we have suspended it for the present; we are stopping the back over this place on the lode; the west end in this level is suspended for the present, and the men put to stop the back of the 30, on the north lode, west of the engine-shaft; we have also put two men to stop the back of the same level, on the south lode; and four men to stop the back of the 10, on the north lode, which will enable us to raise tin stuff for the stamps. When we have forked the water to the 40; we shall be able to put on men also in the 30 and 40, to drive east and west on the course of the lode, and to stop the back; we have in this end a large lode, producing tin. In the back of the western level there is a good lode for 8 or 10 fms. in length; and also going below this level, which will be proved by sinking the engine-shaft to the 50, which will take five or six months to complete. The whole of the machinery on the mine is in first-rate order for working the mine to a great extent. The lodes are embedded in easy ground for working, and the mine can be worked very cheap, according to mines generally; and I must say, taking everything into account, this is a good speculation. We have from shaft to shaft 300 fms. in length on the run of the lodes, which is a large field of mining to be carried out. There are more lodes to the north that we have not cut, but are shown on the plan of the mine.—B. HAMCOCK.

A statement of accounts, from March 31 to Sept. 30, was submitted, from which the following is condensed:—

Balance last audit	£209 15 3
Mine cost April	371 6 6
May	441 0 4
June	331 8 8
July	420 13 7
August	271 0 10
Sept.	322 19 1
Mr. West's contract for removing the engine.	330 0 0 = £2318 1 10
Ors sold	£297 3 4
Calls received	1520 0 0
Horse-whim sold	7 0 0 = 1924 3 4

Balance against adventurers £1193 18 6

Capt. HAMCOCK was in attendance, and explained, by a plan, the present state of the mine; and, as the removal of the engine had been effected, they were now in a position to go really to work.

Mr. WEST said, that the former situation of the engine compelled them to have 70 fms. of flat-roads, and the present way of working would be found far more economical, as it would have both coals and iron-flat-roads of that length being subjected to continual breakages.

Capt. HAMCOCK remarked that, during the time the engine was being removed, they had cleared up the edit, and made a valuable discovery in that part of the mine.

A SHAREHOLDER wished to know whether by the next meeting they would be working to a profit?

Capt. HAMCOCK replied that they could not expect to work at a profit with the recent fall in tin, although he believed they would have done so had that not taken place.

The report and accounts were then unanimously adopted.

Capt. BARNES, H.E.I.C.S., said that it appeared by the accounts for six months, that during that time they had sunk 2000l.

Mr. CUNY reminded the meeting that out of that amount they had expended 3500l. in removing the engine, and that they might have sunk 10000l. worth more tin had they not been compelled to stop the works.

Mr. BROWN said, it was not altogether the expense of removing the engine, but the shaft required extensive repairs.

The Chairman observed that they had only sold 3900l. worth of tin stuff, against three times the quantity when the engine was at work.

Mr. WEST said 13 additional heads of stamps had been erected, and he believed if the price of tin was a little better they would be able to pay all expenses without any further improvement.

The Chairman was of opinion they were now in such a condition that promised,

from the development of the lodes, to be a fair speculation, and worthy of a trial; he would, therefore, propose a call of 7s. 6d. per share, payable by three instalments.

Dr. HURCHISON said, he had the greatest confidence in the directors—that they would do the best they could for the interest of their fellow-shareholders. He wished to know what the call would produce?—Mr. FORTUNE replied, 24000l.

Mr. CUNY explained that he would give them 9000l. after the payment of all liabilities, in addition to the tin sold, and he had every hope that it would not only carry them on, but put them in a condition to prove that they had a good and lasting mine.

Mr. WEST said he attended to represent the Cornish shareholders, who had the highest opinion of the property; and, as a proof, three held 800 shares, himself being one of them. He felt satisfied they had a prize. Let them go on working with the engine they had removed, and he did not think there was a question but that the working expenses would be paid, and a little over. He was of opinion they ought to go on for two or three months in the western part of the mine, and then he would recommend putting a trial engine at the north part, as a small one might be hired at a reasonable rent.

Mr. BROWN stated that, as so much money had been expended by the adventurers, he had applied to the duchy for a reduction of the dues—now 1-18th—and had received a satisfactory reply from Mr. Warrington Smyth, but the answer could not be obtained until after the sitting of the next council.

The resolution for a call of 7s. 6d. per share was then unanimously carried.

A vote of thanks to the Chairman and committee terminated the proceedings.

KELLY BRAY MINING COMPANY.

The general meeting of shareholders was held at the offices of the company, Austinfriars, Mr. JOHN FIELD in the chair.

Mr. KING (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed; as also a special dividend call for forfeiting shares in arrears of call, but action on which there was no business.

A statement of accounts was exhibited, from which the following is condensed:—

Balance last audit	£434 3 9
July, mine costs and merchants' bills	432 19 1
August	476 11 7
September	629 11 7
Law costs, Hoppe and Boyle	131 10 4 = £2104 16 4
Ors sold	1257 1 1
Calls received	625 0 0 = 1852 1 1

Balance against adventurers £222 15 3

The following report of Capt. S. James was then read:—

Nov. 17.—Since the last quarterly general meeting, a communication has been made from the 125 to the 115 east, by rising and sinking, the air is now good; here we have a most profitable tribute ground; the rise is 4 ft. 6 in. east of shaft, and 7 fms. from the 125 end. The 115 has been extended to within 9 fathoms of the western boundary, and, as the lode is unproductive, operations are suspended. The 45 has been driven west 14 fms., and from the improved matrix of the lode, coupled with our meeting with good stones of copper ore, I think we are on the eve of intersecting the course of ore passed through in the level above. The 35 has been driven west 25 fms., the last 20 fms. of which through a lode that will average 150 l. per fm., although in some places it has been worth from 200 l. to 250 l. per fm.; the driving of the level will be very near the shaft in the 50, it will be preferable to see it at that level as quickly as possible, and not waste money and time in driving a 40 cross-cut 23 fathoms. During the past three months the following tubwork operations have been done:—To rise from the 125 to the 115 east, 9 fathoms; the winze in the 135 west, 2 fathoms; to rise from the 35 towards the 25 west, 3 fms. 3 feet; the 115 driven west 1 fm. 3 ft.; the 45 driven west 7 fms. 3 ft.; the 35 driven west 20 fms.; Watson's engine-shaft 9 fms.; which shaft sunk 5 fathoms.—Total 64 fathoms 3 feet.

Previous to the last meeting the tubwork operations were reduced to about 3½ fms. per month, and a full force employed on tribute, by which the reserves were reduced to a very small amount. A discovery took place, and extra hands were employed on tubwork, which, of course, has greatly increased the cost generally; and, on the other hand, I am happy to state our reserves are also greatly increased to the extent of 10000l. per month, now being upwards of 30000l. worth of ore discovered in the different parts of the mine. I estimate the next three months' cost at from 4600 l. to 5000 l. per month, including the stores, dues, &c., and the returns at about 100 tons of ore per month, on the average of the usual quality. As the 135 east (bottom level) is a kindly lode, and wishing to do something towards making discoveries in the lower levels, I have decided to employ a full force on the 135 east, and I strongly advise your resuming the driving of this level east forthwith. There are 23 men employed on tribute, at an average of about 12s. in 14., and you must please bear in mind that none of the new discoveries are set on tribute. We have 24 men employed on tubwork and 14 men engaged on sundry work, such as engine-men, smiths and carpenters, trimmers, fillers, and leaders. We have on the dressing-floors 46 persons, including men, women, and children in their different departments. Total number of persons employed, 107.

The Chairman said the mine itself was making a small profit, which he considered would render it unnecessary to make a call. For the last three months it had paid its way, and he hoped the next would give them something on the right side.

Mr. FORTUNE said the accounts contained a law bill for 125 l., which had stood over for years, and which, of course, made a considerable difference in the balance.

Mr. THOMAS KING thought a small call would be preferable to seeing a balance against the mine.

The Chairman said the balance would be reduced by about 1000 l., and the profit be about 1000 l. The object of the last call was to get them out of debt, and virtually they were now out of debt.

Mr. WATSON and Mr. BIDNEY both expressed themselves in favour of a call.

A resolution adopting the financial statement and report was then unanimously adopted, as also one calling a special general meeting for Dec. 11, for forfeiting shares in arrears of call.

Mr. WATSON fully explained, by a section, the present state of the working, and observed that if they made a call it would put them in a good position, enable them to pay off the merchants, and perhaps get a good discount.

Mr. FORD, as one of the auditors, was of opinion they ought to make a call, as he never liked to see a mine cramped, and he believed it would be the last. A call of 1s. per share was then proposed and seconded.

Mr. THOMAS KING proposed, as an amendment, that the call be 1s.—The amendment being seconded.

The Chairman said he should first take the sense of the meeting whether there should be any call at all; secondly, the amendment; and, thirdly, the original motion.—The resolution for a call was unanimously agreed to. The amendment was negatived, and the original resolution for a call of 2s. carried by a large majority.

The Chairman, Messrs. Cumberlege, Mackay, and Watson, were re-elected the committee of management, with the addition of Mr. Alfred Richards. Messrs. Ford and Bidney were re-elected auditors.

Mr. BIDNEY said the next question was the disposal of the 58 shares in the hands of the committee.

The Chairman put them up in ten lots of five each, and one of eight; and, after a spirited competition, they were disposed of amongst the shareholders in attendance at 31s. per share, which included the 2s. call made at the present meeting.

A vote of thanks to the Chairman terminated the proceedings.

BULLER AND BERTHA MINING COMPANY.

The quarterly meeting of shareholders was held at the offices, Old Broad-street, on Wednesday, when the accounts showed 1867. 15s. arrears of calls, and a call of 5s. per share was made.—The following report was read:—

Nov. 17.—At the engine-shaft, we have sunk altogether from surface 17 fms. 3 ft. on the course of a large fine gossan lode, intermixed with mudstone and copper ore, and from the very kindly appearance of the lode I fully expected to have had a course of copper ore, but the engine is employed at all times in dipping east, and it generally does, and after we make the shaft above 20 fms. I shall propose to drive east, to cut the run of ore ground gone down in that direction. The collaring up of the shaft is not yet complete, but as soon as the men have finished raising stones for the engine-house, &c., they will complete the collar of the shaft. The engine and boiler-house, and stack are in a forward state, and another fortnight will, if the weather continues fine, finish the house, so that the engineers may begin with their work, and while they are putting in the engine, which I should not think would require more than a fortnight to complete, but this will depend in great measure on what force Mr. Mathews has to put on the works, and if the new castings are complete by that time; but I hope all will be complete by Christmas, in order to work soon after. Our smiths' shop, carpenters' shop, and office are nearly ready, except a little in-door work, which will be finished in rough weather, as this is a very exposed place, being on a hill, and masons cannot work out of doors in stormy weather. I am anxious to see the engine at work, and to get down on a course of ore, which I have no doubt there is not far from us in the bottom of the shaft.—JOHN HAMBLY.

The feeling of the meeting was very strongly expressed on the conduct of certain shareholders, who are in the habit of taking a larger interest than they can pay calls upon, and leaving the more respectable ones to discharge the costs of working, especially when the desire of the committee is to prevent the possibility of the mine getting into debt. So strong were these feelings maintained, that the greater portion of the meeting were for advertising the list of defaulters, as a caution to other companies.

DALRIEVIEW COPPER AND LEAD MINING COMPANY (LIMITED).

The directors held their first meeting after full registration under the Joint-Stock Companies Act, 1856-7, on Thursday.

The SECRETARY (late purser) laid the balance-sheet before the meeting, which showed a surplus of 151. 8s. 4d., after discharging all liabilities, including the costs of registration. This company was originally formed with 3000 shares, all taken up by bona fide adventurers. Its early prospects were highly encouraging, a rich copper lode having been laid open in the main adit, from which ore was sold in three months producing 15000l. A lead lode was also found running parallel with the copper, and the expectations of the company were naturally encouraged by these discoveries.

But the driving in the main adit was suddenly arrested by the intervention of a large cavan bed, which, by scattering the lode, produced derangement and difficulties, with which the company have been ever since struggling. By the advice of Capt. Skimming, it was resolved to sink to a 27 fm. level, under the elvan; but, on completing this work, though the copper lode was again opened out, it was found to be still scattered, and poor. The spirited shareholders—nothing daunted, and setting under advice—sunk another 10 fms., to a 37 fm. level, where the lode, though still not equalising expectation, promises to repay the costs of taking up, and several tons have been raised. Under these circumstances a special meeting of the shareholders was called last month, to deliberate as to proceeding further with or abandoning the works.

A report was read from Capt. Skimming, who had visited the ground in the preceding

week, and was present at the meeting. He said that "the lode in the 37 was regular and compact, containing copper ore of the very richest quality, clearly proving that we have got through the disordered strata, and showing that, continuing to open the mine, in depth we should again have the lode as rich and productive as it formerly was above the edit." In reference also to the works in another part of the mine, close to the river's boundary, where a new engine-shaft is being sunk, he said the lode is well defined, producing fine stones of rich copper; and he had every hope that the next, or 20 fm. level, would open a profitable ground. The meeting unanimously resolved to carry on operations with spirit, and it was agreed that the following circular should be sent to each shareholder:—

"This company was, on the 4th inst., fully registered under the Joint-Stock Companies Act, 1856-7, with limited liability, and eight directors appointed, holding 1140 shares. The nominal capital is fixed at 15,000l., divided into 3000 shares, at 5l. each; one-half, or 2l. 10s. per share, being considered as paid-up. Of these 3000 shares, 2410 are for the shareholders, as previously registered. The remaining 590 shares are to be offered at half the paid-up value, or 2l. 5s. per share, and the proceeds to be appropriated exclusively for working capital. But should not one-half at least be so disposed of within fourteen days from the date of this notice, a call will have to be declared."

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

ST. JUST DISTRICT.—The late tremendous fall in the prices of tin and copper ore has caused complete consternation in this part, which will seriously affect the well-being of many of even the extensive mines which might previously have been said to be doing well. From the pressure of the times, a fall had been foreseen, but nothing like the present prices had been anticipated. It will be impossible to keep at work many of the progressive mines, or even those paying trifling dividends, unless labour and materials be very considerably reduced. Orders have already been issued to reduce the former at least 20 per cent.; this unwelcome news has been received with more contentment than could have been expected—the miners feel aware that the mines must be abandoned except such reductions are made, and they cheerfully bow to the necessity, thus fulfilling the favourable character we have all along claimed for them as a class of workmen. It is rumoured, too, that a reduction will be made in the salaries of the agents; we shall see if this will be met in the same stoical disposition—we trust it may, and that, when the gloom now overshadowing mining affairs shall have been dispelled, there will be a disposition to reward the sufferers by a willing return to equivalent prices. To add to the bad effects, it is said that many miners who left some years since to work mines in America, have written to say that they are about to return, in consequence of the state of affairs in that country. This is much to be regretted, as it will only make confusion worse confounded. We trust, however, that the distress will be only temporary, and that we shall soon see our district again thriving and contented.

BOSCAWELL DOWNS is returning considerable quantities of good tin; and had it not been for the late drop in prices, would have cut a very respectable figure amongst the western mines. However, the adventurers have nothing to fear, but all to hope, as they will have a good mine by-and-bye. They have nothing now to do but prepare for better days.

LEVANT is looking better than for some time past, and will again resume its wonted position.

PENDREN is looking promising, and by perseverance will make a great and lasting mine.

BOTALLACK, from the various resources, will probably feel the pressure of the times as little or less than any other mine in the district; though the dividends may suffer to a slight degree, the real value of the mine will not be deteriorated. The reserves are great, and the ore of high quality, so that the adventurers are perfectly safe; and on the return of better times, their dividends will be as good as ever.

WHEAL OWLES is not quite so rich as it has been, but only to a degree quite common in all mines. A slight discovery, which may be made at any moment, would make it as good a mine as ever.

BOSCAWELL and **BOSORN** are both looking well. All these mines, though of course feeling the reverse of prices, will not be very seriously affected thereby.

BALLESWIDEN, though producing large quantities of excellent tin, is nevertheless a very expensive mine to be worked. This extensive mine, though long struggling against adversity, and backed by a noble-minded and spirited set of adventurers, it is feared must at length yield to the force of circumstances. The company for some time, at late prices, have barely been able to keep it afloat. The last quarter's account presents a serious loss, and nothing but gloom appears for the next, which, if prices do not mend, will probably finish its career for ever, or cause fresh and more strenuous efforts to be made, and a considerable outlay may be expended. We have said this mine, to make observations and enquiries concerning the adoption of gas, which we found to be admirably adapted (contrary to our preconceived opinions, and to hearsay) to all purposes. We were assured by the parties in command that it is considerably cheaper than candles. The difficulty in forcing the gas down into the mine exists but in idea, and the prejudice of the miners is entirely dispelled—in fact, it is pronounced by all to be a great improvement, and a desideratum in many large established mines. The waste of candles is entirely superseded, and the pecuniary loss is more than made up by the saving in fuel—indeed, the experiment may be said to be most successful. It is to be greatly regretted that such endeavours have not been crowned by the just reward of a great and lasting mine. One or two little concerns that were being worked have been discontinued, and two or three others that were about commencing have been suspended for the time; still St. Just district, on the whole, may be said to be good, the mines being mostly remunerative.

In the **MARAZON DISTRICT**, we only visited the **MOUNT'S BAY CONSOLS**, which appears to be rather a "slow coach," there being scarcely any ore at surface, and presenting no features of activity, though there is a splendid engine and efficient plant on the ground.

In strong contrast is its next-door neighbour, the **TOLVADDERN MINE**, where all is bustle and activity—and this, too, with good reason. We asked permission of the underground agent to be allowed to go over the mine, which was most readily accorded. We had heard a vast deal about this mine, but we confess that it far surpassed in reality all we had heard. Let those who doubt see for themselves. The lode is large and masterly, being nearly 7 to 8 ft. wide, and has been opened on the back for many fathoms. The shaft is only 25 fathoms from the surface, yet hundreds of tons of copper ore of high quality have been raised and sold. The fall in the standard will prevent that instant success which this mine would undoubtedly have commanded, but will not seriously inconvenience it, the working expenses being comparatively nothing. The mine is at present worked by a small trial engine, but a new one is in course of erection. The whole management displays care and discretion, and the agent prides himself on the manner in which their mine has thus far been wrought; and they should have the most implicit confidence reposed in them by the proprietary. Much prejudice has long existed against mines in this locality, it being said that they do not hold down. Now, there is every indication a miner can desire to constitute a deep and lasting mine. At surface, the richest gossan, decayed spar, with carbonate and black ore; a little deeper, more ore, yellow, grey, and black, with beautiful specimens of blue and yellow carbonates; still beneath, peacock ore with the other varieties; and in the 25, or bottom of the mine, fine peacock, blue, and purple ore, and the coarsest quality of gossan and bell-metal ore, and returning large quantities of which have been brought to surface. The gossan in this level is still holding on; this valuable deposit has been proved for a considerable distance, and if these appearances do not promise a good mine we do not know what does. We only wish we were fortunate enough to hold a few shares in it.

KENNEDY is said to be greatly improved, a discovery of importance having been made on Monday or Tuesday last; the particulars we do not know; but, as we intend to visit the spot to ascertain facts, we defer our observations on this and surrounding mines until next week.

LUDGVAH LEASE is still idle, or nearly so; nor does there seem much chance of it again soon resuming operations.

ST. IVES and **LELANT DISTRICTS** appear to be about the best at present in West Cornwall, though the fall in tin will seriously affect their prosperity.

The **OLD REETH** is vigorously at work, with a powerful party, and with every prospect of success.

The **REETH CONSOLS** is now becoming a very deep and expensive mine. The fall in tin, if it continues for any length of time, will probably stop this mine. Already they have let 60 fms. of water into the bottom level, which may thereby be said to be virtually abandoned. Though working now for upwards of 20 years continuously, in the case of the great tin mines, and returning large quantities of ore, these mines have paid only a slight dividend or two, and it is doubtful whether they will further prosecution, under less favourable circumstances, will be politic or advisable.

The **ROSEWALL HILL** and **WHEAL RANBOM** works are proceeding rapidly, and in a manner which does credit to the engineering skill of all employed. It is premature to speak of the merits of these mines, as they were known to have been formerly productive. Lying, as they do, west of the St. Ives Consols, if situation be any recommendation, they have all that can be said in their favour, and we wish them success.

affect this mine: had its ore been sold for the late prices, little or no call at the next meeting would have been required—as it is, a call of at least 17. per share will be necessary; this, too, arising in a great measure from the above causes, will throw the capitalists of this, as well as many other mines, quite out of their calculations and premises. They ought not to be blamed, as, under such adverse circumstances, correctness is impossible.

TRILYON CONSOLS is still looked on favourably, and is making considerable returns. This is a very small set, but well situated. The shares have lately risen in value.

The great mines of this immediate neighbourhood are the PROVIDENCE MINES, and to them the price of tin will only decrease the dividends for the time being. The quantity and quality of the tin raised in this mine is astonishing, as is also the curious character of the lodes. The standing lode, as the perpendicular lode is termed, is not the great tin-producing source of itself it is poor, but at a depth there are eccentric bunches or beds, termed carbonates. These contain deposits of tin that are of extraordinary purity; we saw one in the counting-house yesterday, weighing upwards of 4 cwt., nearly clean black tin. We should like to have begged it for the Museum in Jermyn-street, and told the agent so: this will probably be its destination, as it would be a pity to consign such a stone (being covered with crystallized tin) to the melting pot. On the floors were many tons of work, nearly solid tin. The mine looks as well as ever, notwithstanding the vast quantities that have been removed; it is in the granite, and, like most mines in that rock, is very dry. Though 175 fms. from the surface, a 36-in. engine does the duty, the lowest plunger-lift being only 3 1/2 inches. The floors are very much raised, and might be improved by this department. Water for dressing is very scarce: it is intended to alter and improve this department shortly. With this view, the engine for stamping at the West Providence Mine has been purchased, and will be worked where it now stands, the distance being but small. When the floors are complete, the returns may be considerably increased. A calciner should by all means be introduced, as well as some sets of Teague's improved dressing-frames. As this mine affords matter for considerable instruction and encouragement to young adventurers, a few statistical statements and remarks may interest your readers—they may be depended on as facts, being derived from indisputable authority. We purpose at some future date to describe this remarkable mine underground, as it will afford considerable information. The mine was worked on the backs by the old men from time immemorial, and some of their old surface workings may still be seen. It was partially and ineffectually wrought subsequently by two or three other sets of adventurers without success, till at length the present persevering gentlemen took it in hand. They, too, were almost worn out. At one meeting, the principal adventurer, whose call on that occasion amounted to 12000, announced his determination to pay no more—if the mine would not pay his way, it might stop. The mine, for the space of 16 years' continuous working, at an outlay of 12,0000. of the adventurers' cash, and 125,0000. worth of its own mineral produce, did not pay a dividend; but afterwards let us see its progress and present position. The first dividend was declared in February, 1854:—

1854.	Per share.	1855.	Per share.
February dividend.....	£0 10 0	February dividend.....	£1 5 0
May " " " " " " " "	0 15 0	May " " " " " " " "	1 10 0
August " " " " " " " "	0 10 0	August " " " " " " " "	3 0 0
November " " " " " " " "	1 0 0		

We now proceed to show the amounts of black tin sold from the above date for two years ending August, 1857:—

Date.	T. c. q.	Av. price	Dividend	Amount	Left in par-	Labour
					ser's hands.	cost.
Nov. 21, 1855.....	71 0 0	£70 17 0	£1	£4863 1 0	£2355 14 10	
Feb. 20, 1856.....	74 1 0	74 5 0	5	5247 8 0	890 6 1	2245 18 10
May 21 " " " " " " " "	63 18 2	77 13 0	5	4750 4 2	503 5 4	2342 9 11
Aug. 20 " " " " " " " "	59 9 1	76 2 0	4	4336 10 10	428 9 1	2256 4 10
Nov. 19 " " " " " " " "	58 0 1	80 5 0	4	4457 18 6	133 16 11	2195 14 9
Feb. 18, 1857.....	62 3 8	83 5 0	5	5303 2 9	322 13 7	2542 5 6
May 20 " " " " " " " "	70 1 0	81 10 0	5	5458 14 5	114 8 8	2930 0 0
Aug. 19 " " " " " " " "	73 0 0	75 10 0	3	5291 2 3	192 7 1	2973 2 10

Here, then, we think, is ample proof of that perseverance can accomplish. Read this, O ye discontented!—12 years without a dividend, and an outlay of 140,000! We commend these remarks to the consideration of the grumbler who expects, because they embark the munificent sum of 100, in a mine, that they ought to have it all back in dividends in a year or two, or otherwise the mine must be worthless. We pray you, take heart, and fear not—you have as good a mine as the Providence, if you will have half the patience that these adventurers have had. We appeal now to the men of Leeds, who are dissatisfied because their mine, forsooth, has returned 10,0000. worth of ore in four years, and has not paid a dividend, though they have expended 12,0000. besides! Fear not: such examples as the present are intended for such persons as you. On your mine is as much machinery as on the Providence, and it looks better at the same depth. Fear not, any of ye faint-hearted gentlemen—in any part of England, mining, if persevered in and properly worked, will in nine cases out of ten pay, and pay well; but scratching at the surface for a few fathoms, and, if wealth be not found, commencing quarrelling, is not mining, but downright waste of money. The management of this mine is greatly indebted to the persevering industry and ability of the late Capt. Penberthy, who died just as the mine had attained its prosperity. He was succeeded by Capt. Penberthy, who carried on the works with vigour and confidence: this gentleman purchased largely in the mine before he became so rich, and has now retired to enjoy his well-earned *otium cum dignitate*. The present manager is Capt. Arundel Anthony, who, although but slightly educated, has prepared himself to fill this responsible situation. We had the pleasure of inspecting some plans of the mine, executed by him, which would have done honour to a Mining School education, or to the Hydrographer to the Admiralty. We begged him to execute one for the Jermyn-street School of Mines, and believe we succeeded. It will then be practically seen, whether or not we have such men for captains, as we have described, and that all are not "Bul Sellers" or "Knaveish Captains," as they are often said, and too often believed, to be.

EAST PROVIDENCE MINE is situated close adjoining the great Providence, now so rich, being merely divided by a rivulet. It is highly probable this may make as good a mine as the Providence, and is now on the shaft, sinking close to the edge of the set, near the Providence Mine, is of the most promising character for tin. The colour of the ground and nature of the strata is all that can be desired. The set is surrounded by good mines.

THE GUARDIAN HEAD MINE is situated in exactly the same strata as Leant, Botallack, and Carrack Dhu. It was worked about 20 years since. After the success attendant on these mines, it is surprising no attempt has been made to resuscitate this mine, where considerable quantities of work have been executed by the former workers, which would be available to a new company.

ASHBURTON UNITED TIN AND COPPER MINES.—We are pleased to hear Mr. Nicholas Ennor is progressing well in bringing out these mines, notwithstanding the depressed state of the money market. We are informed that a provisional committee is to be appointed forthwith, and bankers named to receive the deposits, when operations will commence, and the mine be vigorously prosecuted. We would observe, that this piece of ground must undoubtedly hold out more than ordinary chances of success, or Mr. Ennor's opponents would certainly attempt to depreciate it; but no one has attempted to do so—indeed, on the other hand, surprise is expressed that a set containing 10 lodes, one of which having yielded half a million's worth of tin and copper, should have remained an hour unworked. The mine is now only 60 fms. below a shallow adit, and can be again laid open, the water forked, and ore prepared for the market, in six months after the engine is commenced.

NORTH TRELETHRE MINE (Padetow).—The adventurers seem likely to have a valuable property here. This lode, which runs north and south, is carrying a branch of solid grey ore, 3 in. thick, at a depth of only 5 fms. The amount of malleable copper is also surprising: they have only carried on operations for about five months, and will sample next week, we believe, a valuable parcel of ore.

NORTH LEVANT.—The engine-shaft is worth 200, for the length of shaft, 12 ft. long—sinking for 120. per fm. No. 1 lode is worth 80, working at 4 ft. No. 2, 200, working at 5 ft. No. 3, 300, working at 3 ft. 10 in. These spots are west of Borsias's shaft, under the middle adit; the lode in Borsias's shaft, sinking under the middle adit, is at present rather disordered. They intend to resume stopping east in a month, when they will shortly get under the run of tin ground where the lode has been worth 120. per fm. The lode in the deep adit is worth 120. per fm.; the stopes in the back are worth 130. They expect to communicate the engine-shaft with the deep adit in six or seven weeks from the present time. The carbons, in the back of the middle adit, east of Red Barrow shaft, is worth about 100. per fm.

THE LADY BERTHA MINE continues to improve. There is a good lode in the eastern end, in the 20 fm. level, worth fully 3 tons of ore per fm.; this is an important feature, there being some hundreds of fathoms of ground to the eastern boundary. The lode in the west end has also improved, and is now worth 2 tons of ore per fm. A very good lode has gone down in the bottom of the 20. In the 30 there is a fine strong lode, 14 ft. wide, and not yet cut through.

AT BOSCAWEN MINE, the 64 east, on the new north lode, is opening good tin ground, lode varying from 2 to 3 ft. wide. The 100 east, on the spar lode, is also in good tin ground, lode about 1 ft. wide.

ALFRED CONSOLS never looked so well as at present, and they are expected to cut the rich lode in the 140 hourly. When this is done a greater rise will take place in the price of these shares than ever was known.

WHEAL EDWARD will pay 5s. or 6s. dividend next account. They will soon be ready to resume sinking the shaft, where the lode is worth 2000. per fathom. Capitalists would do well to have a peep here.

WHEAL ZION.—The case of Stockwell v. Lord Clinton and Jeffree has been removed, on the application of Mr. Berry and Mr. Lewis, solicitors to the defendants, by certiorari to the Court of Queen's Bench. These gentlemen attended before Mr. Justice Crompton at Judges' Chambers, previous to making the order for the writ to issue. His lordship asked if it was the fact that the matter had been fully enquired into before the Lord Mayor? Mr. Berry replied that it had already been thoroughly investigated, and the charge, after two examinations, dismissed: that the present indictment was a mere echo of the accusations preferred by Mr. Stockwell at the Mansion House; whereupon the learned judge at once ordered the proceedings to be removed into the Court of Queen's Bench. The case now, at the instance of the defendants, as early as the course of practice admits, will be tried by a special jury. It must be remembered that the bill found by the grand jury was merely on an *ex parte* statement, the defendants had no opportunity of disproving the allegations preferred there, or even knowing what they were. We had thought the case was disposed of at the Mansion House; it has, however, now been removed to a higher court, and the public will again have an opportunity, elsewhere, of hearing the details of the transaction and the examination of the witnesses in this singular prosecution. If there be nothing more added than is already before the public, it is deeply to be deplored that such proceedings should take place—tending, as they do, to throw such discredit on mining enterprise.

MINING IN IRELAND.—We are informed that several copper lodes of great promise have been discovered on Lord Clinton's property, on the north side of Crookhaven Harbour: and partial trials have been made, with a view of testing their capabilities; and, as far as these trials have been carried out, it is considered by competent judges, by judiciously applying a moderate capital in their development, that it would be the means of inestimable benefit to the employer and employed; and, as the lodes on this part of his lordship's property are both numerous and promising, it is to be regretted that further trials are not made. However, it is to be hoped, ere long, that proper attention will be directed to this valuable mineral property; and also that active operations will, under proper and efficient management, soon commence. It seems, from unmistakable indications, that mineral on both sides of Crookhaven Harbour is more than ordinarily prolific.

MEMS. OF MINES AND MINERS.—No. XXII.

Capt. PHILIP DUNSTAN (Trelyon village, near St. Ives) presents in his person a *rara avis*—one who has enough of the good things of this world, earned by his own abilities, and knows it. To men like these we are glad to refer; it is a far more palatable task than describing "Knaveish Captains." We are not so much given to the *ad captandum* as to prostitute our pen to pandering to depraved tastes; we prefer the more dignified path. We have written enough of the vulgar as examples, and now we claim to enjoy our own way. We do so with more pleasure in this instance, where, as we have before said, virtue meets its just reward. The subject of our memoir was not a native of the locality of his labours, but came from a mining parish near Camborne, that fountain-head of mining: there he drank the bitter waters of experience all must quaff ere they be qualified to become what he was—a thorough-bred miner and manager. No dandy is he, no bewhiskered professor, but a plain, unadorned Cornish miner. After this exordium and eulogium, it will be asked, what has he done? Well, we will tell in a few words. After Capt. Penberthy left the Providence Mine, and before it was anything like what it is now, Capt. Dunstan was called upon to take the management, as the best man that could be procured. With some hesitation, and after considerable persuasion, he undertook the responsibility, to what purpose the state of the mine at his retirement is the best evidence. The Providence became, and is, one of the best tin mines in the world. Good fortune and good management are too often reckoned synonymous, but they are not so. In some cases, ever so great care and watchfulness end but in misfortune; but, where both are combined, this seldom happens—witness the result we now portray. We must admit that good fortune is a far more dangerous companion than misfortune, though for a time the more agreeable sister; the one teaches economy, the other, too frequently, extravagance. In Capt. Dunstan we have the golden medium; he dispenses his well-earned independence in a manner becoming a man who has won it—generously, but not ostentatiously. Amongst the miners Capt. Dunstan's departure was exceedingly regretted; to his employers it was a source of gratification, as they were anxious he should enjoy his later life in that comfort his busy, toiling youth so richly deserved. To him young miners may look with hope that they too, like him, by practising the cardinal virtues may be his followers in the paths of fame and fortune. It must not be supposed from the foregoing that the Captain has not had his crosses and severe trials; these he has had, and hard work to boot. There is no royal road to mining celebrity and fame: rough hands and supple shins must be theirs who pursue this business. Dangers, too, they must not fear, for they are many; and when we witness a gentleman who, yet in the early autumn of life, is entitled to retire from such scenes with honour and with wealth, we have a right to sing *psalms*, and we do so. We wish the instances were more numerous than they are. As a practical miner, Capt. Dunstan has proved himself competent; as an adventurer, bold; as a master, kind; as a gentleman, liberal—indeed, in all the phases of character he has proved himself of a superior order. He enjoys the confidence of his neighbours, the respect of his acquaintance, and the blessings of the poor. To these we commend him, with a sincere hope that he may long live to grace the situation in life to which he has been called.

Capt. ANDREW ANTHONY (Providence Mines) has been in the service of the company from a boy, and has now the proud distinction to be the principal manager of these splendid mines. Should this meet the eyes of boys, mark this example! The author of this memoir has heard the father of its subject say, with the tear of just pride and gratitude standing in his eyes—"This boy, Sir, had no education." And no young man need despair, if he will but try. It would be a work of supererogation to laud this youth; his works and situation speak volumes of themselves, and are worth thousands of speculative opinions as to the power of mind. His works will soon adorn the walls of the metropolitan Museum of Mines, when all will be able to judge of his merits. His moral character is exemplary; and the author deems himself but too happy to have the friendship of so amiable and so distinguished a youth; who, we are sorry to learn, is anxious to go abroad. This generation cannot spare him!

Capt. ANSOLOM and GEORGE BENNETT (Tolvadden Mine).—We have often urged that the only way to success is perseverance, and have so often shown it, that we begin to persuade ourselves it is a truism, for in scarcely a single instance do we find the contrary. In these gentlemen we have ample proof. After being tossed about for years on the waves of fortune, with all its vicissitudes, they have at last found a harbour of refuge—and such a harbour! Their fondest fancies could hardly in its wildest dreams have pictured such a mine as theirs promises to be—nay, is, as far as it has been tested; and yet no better than they merit for their perseverance and trouble. They deserve, and have, the good wishes of the parties who have known them through their long career. We had the pleasure of visiting their mine a few days since, and we confess our heart leaped to see such appearances as we there witnessed. If we mistake not, Tolvadden will be what Botallack now is—the show mine of the county. The beauty of the situation is unrivalled in this kingdom: Mount's Bay, and the ever-to-be-admired Mount, are as well seen from this point as from any part of its shores. We wish the Tolvadden Mine and its captains all the luck they wish themselves; and, moreover, we believe they have it,—at all events, the next time we go that way we will call and see. If not, we shall be disappointed.

SALE OF A MINE.—Mr. Marsh submitted for sale by auction, at the Mart, Bartholomew-lane, on Thursday, the Welsh Fotol Lead and Copper Mines. The sale took place under the direction of Mr. Commissioner Fane, of the Court of Bankruptcy, to whom it was referred for winding-up under the Joint-Stock Companies Act, 1856. The property was put up in one lot, and consisted of the Esgrir-hir and Esgrir-fraith Mines, comprising 1141 acres, or thereabout; and the Alt-y-Crib Mine, comprising about 284 acres, situated near Aberystwyth, in the county of Cardigan, and held under leases for 21 years each from the 24th of June, 1853, and June 23, 1854, determinable at the option of the lessees, and renewable at the like option for a further term of 21 years, subject to a royalty of 1-14th of all ore raised and sold. The lot included the wharves of the valuable machinery, plant, and buildings. There were barracks for 180 miners, good offices, houses for agents, storehouse, smithy, stabling for 12 horses, cart-sheds, and coal-house. The company had expended large sums of money upon the machinery, plant, and buildings, the formation of five reservoirs, and water-courses, and in the development of the mines. Ores to the amount of nearly 20,000, had been sold since operations were commenced. The ores on surface at the time of completion of purchase, the office furniture, bedding, &c., at the barracks, wagon horses, and stores at the mine are to be taken at a valuation. Mr. Marsh, having read the conditions of the sale, observed that it would be useless for him to attempt to describe the property to such a numerous attendance of capitalists, who were so much better acquainted with it than himself. At the same time, he believed it would turn out a prosperous undertaking with good management, and he had no reserved price, being sold under the order of Mr. Commissioner Fane. Mr. Hancock (Hancock and Sharp) drew attention to the early day named in the conditions for payment of the balance of the purchase-money. He considered Dec. 17 too soon in the present state of the money market. Mr. Marsh said, the fact was when the conditions were prepared matters were not going as at present. He was much obliged to Mr. Hancock for drawing his attention to the matter, and would suggest that the date should be altered to Jan. 19, 1858. Mr. Harrison, the solicitor, having made the necessary alteration, the bidding commenced at 10000, and after a very spirited competition, at which the bidders uniformly advanced only 500, it was finally sold for 30000. There was a very excellent attendance of gentlemen connected with the mining interest; and we were informed that the London business of the company will be conducted at Mr. Murchison's offices.

SALE OF MINING SHARES BY AUCTION.—On Tuesday, Messrs. Youlett and Son submitted for sale, by auction, at Garraway's, 293 shares in Drake Walls Tin Mines, put up in 25 lots of 5 to 25 each. Amongst the parties in attendance were Mr. Bettley, Mr. Dunford, and Mr. Tyrie, already largely interested in the adventure, and a number of mining brokers. It was evident that the fall in the price of tin opened against the sale, and although there was considerable competition, the various lots realised only from 27s. to 29s. per share.

THE IMPERIAL BRAZILIAN MINING ASSOCIATION.—It is expected that the affairs of the association will be finally wound-up, and the assets divided early in the ensuing spring. We regret to learn that Mr. Joel Hitchins, who was sent out specially to dispose of the property, armed with the necessary authority, has met with a very serious accident. He had been engaged in Rio de Janeiro on business, and was returning to the mines. After proceeding about 120 miles his mule knocked up, and a family travelling in a diligence offered him a seat outside, but he had only gone a short distance when the mules took fright, and threw the conveyance over, breaking Mr. Hitchins's leg in two places, and severely bruising the other travellers.

SOUTH WHEAL SETON.—A 50-inch cylinder engine has been erected on this mine, and on Tuesday was put to work, under the direction of Messrs. Hocking and Loam: the starting of the engine was all that could be desired. From the continuity of this mine to West Seton and North Roskear, it is expected it will prove a valuable property to the adventurers.

DEVON AND COUNTESS.—Andrew Osborne (formerly agent to the Tavy Consols), in cutting out an unexploded hole with a steel borer, the borer struck fire, and the hole exploded, cutting him sadly. He is cut a great deal about the face, and amputation of his right hand was found to be necessary, but he is going on as favourably as can be expected. Had the regular precaution been taken of throwing water in the hole, this misfortune would not have occurred.

TAPPING'S PRIZE ESSAY ON THE COST-BOOK SYSTEM, enlarged and augmented, with Notes and an Appendix, can be had at the MINING JOURNAL Office, 26, Fleet-street.—Price 6s.

Mining Correspondence.

BRITISH MINES.

ABBEY CONSOLS.—J. Trewin, Nov. 16: There is no change to notice in the 10 east; the lode is still producing 7 cwt. of lead ore per fathom, a very promising looking lode. The lode in adit level, west of engine-shaft, is worth from 3 to 4 cwt. of lead ore per fm. No lode taken down in adit level, west of engine-shaft, for the past week. We are still driving by side of the lode in the adit level, east of eastern shaft. The lode in the rise in back of the lode is yielding occasional good stones of lead ore. No. 1 lode is worth at present 1/2 ton of lead ore per fm. No. 2 lode is much the same as stated in my last report, worth from 6 to 7 cwt. per fm. The stopes in the back of the adit, east of the rise, are worth from 4 to 5 cwt. of lead ore per fathom. The lode in the eastern shaft is worth about 6 cwt. of lead ore per fathom, and has a good-looking appearance.

ALFRED CONSOLS.—M. White, T. Trelease, Nov. 18: Field's shaftmen have commenced driving a cross-cut north in the 160. The lode in the 160, east of this shaft, is just as reported last. No change in the 120, west of this shaft, nor the 70 north. The north lode in the 120, west of cross-cut, is worth for copper ore 450. per fm.; and east of said cross-cut, 350. per fm. This lode in the 120, west of cross-cut, is worth for copper ore from 120. to 150. per fm.; and east of said cross-cut, 140. per fm. The north lode in the 120, east of Davey's engine-shaft, is at present unproductive; the main lode in this level, east of this shaft, is worth for copper ore 400. per fm. This lode in the 110, east of this shaft, is worth for copper ore 150. per fm. Davey's engine shaftmen are cutting pit in the 110; the main lode in this level, west of No. 2 lode, is worth for copper ore 700. per fm. The north lode in the 100, east of this shaft, is worth for copper ore from 300. to 250. per fm.

BALLYMONEEN.—W. Barkla, Nov. 14: In consequence of the ground being hard in the 15 cross-cut, it makes our progress very slow. We have driven since our report 2 ft. 6 in.: total driven, 19 fms. 3 ft. 2 in. We have commenced to drive east in the 15, which is producing stones of sulphur. Our engine works well, and consumes but very little coal.

BALLYVIRGIN.—R. Fallow, H. Kellaway, D. Macdonald, Nov. 10: The engine-shaft is sunk 8 fms. 1 ft. 9 in. under the 10; we purpose to sink it a few inches more, and having squared the bottom, and leaving 2 ft. of fork, we shall commence driving westward to cut the lode. We have finished stopping the muddle in No. 1 lode, and are clearing the stuff from it; to-morrow we intend beginning to take down the lead and copper which has been reserved for some time past in this stop, and we expect to be able to do this at 120. or 130. per fathom. The lead and copper are now to look well, and going away in whole ground. The lode is now within 5 feet of the north end. We have set a bargain in No. 2 stop, to six men, at 60. per fathom; this stop is worth 2 tons of copper, 1 ton of lead, and 5 tons of muddle per fathom. The rise to surface has been holed, and the mine is now well ventilated. We purpose to sink from the bottom of the air-shaft to the back of No. 2 stop, and leave an arch of ground standing to support the hanging wall; when this is done we shall stop away the ground from the end of the air shaft to within 3 feet of the engine-shaft, leaving a pillar of ground standing to support the shaft. Respecting the dressing department, we have put in a new rye, and a floor 27 ft. long and 9 feet wide has been laid; when this is finished we shall commence to dress lead, which hitherto we have not been able to do. We have added about 3 tons of second crop copper to pile, and prepared 3 tons of lead and 3 tons of copper for the crusher, and also added 5 tons of muddle to pile. We have put 6 tons of lead, 2 tons of copper, and 20 tons of muddle to grass; of the latter we have 10 tons ready for drawing to surface. We have made a new catch-pit 15 ft. long, 10 ft. wide, and 3 feet deep, for the purpose of saving the fine lead from the drag and tyne. We are loading the *Mariner* with muddle at Clare.

BAMFFYLDE.—C. Hand, Nov. 17: The end west in the 40, on Follimore lode, is still poor, the south part not yet being cut. The south lode in the 40 is improving much, with some stones of ore, though not to value; the lode in the 30 is worth to look well, and some stones of ore are improved. The men in No. 4 shaft have cut a branch of good ore about 2 to 3 inches wide, which is continuing. We are not yet below the unsettled ground in new lode. The ore (12 tons) ready last sampling-day will be shipped to-morrow, produce 22. All is going on well.

BEDFORD CONSOLS.—J. Hodge, J. Mitchell, Nov. 19: Since our last we have but little change to report. The adit end is set to six men, at 60. 10s. per fm., and tram all their stuff. In the past week we have seen some small stones of yellow copper ore, but not enough to value. The south end is set to six men, at 100. per fm. We have been driving by the side of the lode for the past week, and shall continue to do so until about the middle part of next. The lode is large and ore, and portions of it save the lode, it has every appearance of further improvement. All other work—the excavating of foundation for engine, &c., also stone raising, drawing, &c.—is favourably progressing.

BEDFORD UNITED.—J. Phillips, Nov. 19: We have two stopes working in the bottom of the 115 east—one yielding 5 1/2 tons, and the other 3 1/2 tons of ore per fm. The stopes in the back of this level will yield 3 1/2 tons of ore per fm. The stopes in the back of the 115 west is turning out 4 1/2 tons of ore per fm. Our drivings at present chiefly by the side of the lode, which, however, will be taken down in time to enable us to give you its character in the different ends in next week's report. The old pitches are rather poor at present.

BODCOLL.—F. Evans, Nov. 16: Evans's shaft has been sunk the last week 1 ft. 4 in., it has also been well timbered from the bottom; the total depth is 4 fms. 5 ft. 4 in.; it is re-set to six men, at 100. 10s. for 2 fms. I intend erecting a small shed over the shaft to protect the men from the weather, and to enable us to sink faster. The 10 west was driven 3 ft. last week, making the total driven 33 fms. 0 ft. 9 in.; the principal portion of the lode remains standing to the north, showing a little lead, copper, and sulphur; I intend to have it broken through in the coming week, as this looks to be the mineral-bearing part of the lode; the part we have been driving on has produced occasionally good stones of lead, but not regular during the past week.

BOG.—Edward Rogers, Nov. 18: The shaftmen are engaged stopping the back of the Boat level; the lode in which is 1 ft. wide, 9 in. of which is all lead and blende; from its present appearance it is likely we shall have a large quantity of blende and lead ores in this piece of ground. At the surface we have enlarged the dressing floors, and commenced washing the burrs at the lower part of the mine, and are getting on very favourably, and expect to sample a parcel of lead and blende ores by the middle of next week.

BOILING WELL.—J. Delbridge, in the 60, east of engine-shaft, the lode is 1 ft. wide, and unproductive; this end is within 4 1/2 fms. of King's shaft, and we purpose driving to the shaft with all speed, and sink the shaft from the 50 to the 60. In the 60 west, on the north part of the lode, the lode is 1 foot wide, with blende and stones of ore; this end is suspended until we hole the shaft to the 60, for want of air to work. In the 50, west of the engine-shaft, the lode is 4 ft. wide, and unproductive, although it has a kindly appearance of late; the lode in this end has been much larger by half than usual, and yielding a quantity of water. In the 50, east of King's, the lode is 1 foot wide, yielding stones of blende and spots of ore, but not to value. In the 40, west of Austin's, the lode is 3 1/2 to 4 feet wide; we have a good branch of lead ore in the end on the north part, the south is quartz, spots of ore, and muddle. In the 40 west, on same lode, west of Austin's, the lode is 2 1/2 feet wide; tribute ground. In the 30, east of Austin's, the lode is 1 foot wide, producing lead and stones of ore; tribute ground. In the 20, west of Austin's, the lode is 1 1/2 foot wide; good tribute ground. In the 40, west of Austin's, we are driving a cross-cut south to cut the south part of the lode; we expect 6 feet more will cut the lode. We purpose putting a rise above the 30, west of Austin's, to prove the lode above this level, being in whole to surface. In the 20, west of Sydney's, the lode is 30 in. wide; good tribute ground for lead. In the 20, east of the lode is 1 1/2 foot wide; tribute ground. We are sinking Sydney's shaft below the 20; we expect 3 fathoms sinking will meet the lode, when, from the appearance in the 20, we expect some good lead ground. Our lead tribute is looking favourable, and bids fair to sample 14 tons of lead on Saturday next. Our copper tribute ground does not look so well for the last few months. Our machinery and other things throughout the mine are without change to notice. Out setting and pay went off quite satisfactorily.

BRONFLOYD.—M. Barbary, Nov. 19: The south lode, in the rise in back of deep adit, is looking well, and is yielding 1 1/2 ton of ore per fm. The cross-cut south from the 17 of the No. 2 shaft is proceeding favourably, and commencing small strings of ore. The 17 west of No. 2 shaft, on the same part of the south lode, is looking promising, and is yielding saving work. We are getting on with the new dressing-floors as fast as possible.

BWLCH CONSOLS.—B. Norrthey, Nov. 16: The 60 west is still improving, the lode is worth 12 cwt. per fm. The 60 east is just the same as last reported; we are cutting a trip plat in the 60, and making preparations to sink Pwllrhysad shaft to the bottom of the 40; for the last week our water has been very slack for crushing. I shall sample 35 tons of good quality lead to-day. I will send you my setting list in a few days' time.

CALSTOCK CONSOLS.—W. B. Collom: Since the general meeting no lode has been taken down in the 12; by the middle of another week there will be from 3 to 4 fms. of the lode down, which we expect will be very rich, and will be cut into pieces. From the stopes in the end of the winze the men are breaking very good work for copper. Two pitches are also working in the back and bottom of the adit level, about 80 fathoms east of the engine-shaft. The pitch in the bottom of the level is improving. The lode in the adit end east is becoming more regular, and yielding some good stones of ore. The level driving east from the high back is opening tribute ground. By the end of December we shall be in a position to sample another good parcel of ore.

CAMBORNE CONSOLS.—Wm. Roberts, Nov. 17: In the adit level west the lode continues 3 ft. wide, composed of muddle and occasional stones of ore. In the 10 and 20 fm. levels, driving west, the lode is about 1 ft. wide, present unproductive. In the 30, driving east from Wicall, the cross-cut, the lode is small. Our neighbours (Stray Park agents) have dammed up the water in the 33, at Tindal's shaft, and thereby 12 men have been turned out of employ.

CARADON CONSOLS.—W. Rich, Nov. 18: We have cleared the 33 north to within 4 fms. of the end; in this distance, at the commencement of the run, we placed two strong dams of timber across the level, to prevent the stuff from washing back—we have cleared the level to the outside of these, and find the water very powerful, so that, if we attempt to remove them, it will quickly fill the level. To avoid the risk of another such run, I have thought it best to commence a side level to the west of the crushed ground, and, if possible, cut the lode and drain it in the firm country. I calculate we have about 8 fms. to drive to reach the lode. The cross-cuts are being formed of decomposed granite, when we get near a lode the water has a very great influence—hence our present difficulty. At boundary shaft, the boundary lode is increasing in size as we sink; it is now 12 to 15 inches wide, composed of kindly peach and spar, with spots of copper ore; it appears to improve as we leave the junction with the other lode.

CARMARTHEN UNITED.—Thos. Williams, Nov. 18: We have sunk Harrison's engine-shaft to the bottom of the 7, and fixed the pitwork; and are engaged in casing and bed-planking the shaft. The adit end north is producing good stones of lead, with every symptom of improvement. The masons will finish the wheel-pit by the end of this week.

CARNEWAS.—G. Reynolds, Nov. 18: The lode in the end is from 2 to 3 ft. wide, improved very much since my last report, producing fine stones of lead from the east side of the lode; large vugs of muddle are being cut into, and letting out much water. From these appearances, I have every reason to think that we have a large lode before us of some importance, the present end being nearly 30 fms. from the cross lode, which we drove through, and which disordered the main lode at that point; now that it is forming itself again by the several parts falling together, the ground is not so hard as it has been, driving at 90s. per fm. The air is good, and I see no need of having any timber for air shafts as yet, which will tend to keep the cost as low as possible.

CASTELL.—J. Lester, Nov. 16: The part of the lode working upon continues much the same, if anything, a little more lead ore in the east stopes, which we are saving to dress by itself. The carriage of the blende is less than 50 tons. I am going this day to look at a store-house to put it in; I believe we can have part of the ore used by the Engair Myra Company.

CARVANNALL.—W. Roberts, Nov. 17: Nothing new to report this week.

CEFN CWM BRWYN.—Nov. 17: The north part of the lode is intersected in the cross-cut south from Taylor's shaft in the 50, and we have cut into it about 3 feet. There is a good branch of ore for about 18 inches wide on the north wall, but we have not reached the south part of the lode as yet. There are several strings or small branches of ore still intersected throughout the lode as far as seen; we have cut into it, and the ore is quite free from blende, but the lode is underlying very fast, and as soon as we have cut through it we shall commence to drive westward on its course. The lode in the 50, west of Taylor's shaft, is large, and of a promising appearance, now yielding 15 cwt. of ore per fm.; the lode in the 50, west of Taylor's shaft, is 4 ft. wide, producing 1 ton of ore per fm.; the slope over the same, 30 fms. west of shaft, is yielding 14 cwt. of ore per fm.; the slope over the same, 30 fms. east of shaft, is yielding 15 cwt. of ore per fm. The lode in the 50, driving east of Taylor's shaft, is 3 ft. wide, containing a little ore, but not to value; we must push on this level eastward in order to prove the run of ore ground gone down in the bottom of the 50, which is still in advance of the 56; the slope over this level, 35 fms. east of Taylor's shaft, is producing 10 cwt. of ore per fm.; the slope over the same level, 15 fms. east of shaft, is yielding 14 cwt. of ore per fm.; the lode in the 50, east of Taylor's shaft, is 4 ft. wide, yielding at present 10 cwt. of ore per fm. The lode in the 44, driving west of Taylor's shaft, is 3 ft. wide, with a kindly appearance, now yielding 10 cwt. of ore per fm.; at this end a new cut to the west of the shaft, and I think we shall now open out some ore ground in that direction; the slope over the 44, east of Taylor's shaft 25 fms., is producing 18 cwt. of lead ore per fathom; the slope over the same, 25 fms. west of shaft, is yielding about 13 cwt. of ore per fm.; the slope in the bottom of the 44, west of shaft 50 fms., is yielding 15 cwt. of ore per fm. The cross-cut north in the 40, west of Taylor's shaft 4 fms., is progressing favourably. There is a great deal of water coming out of the present end, and we hope we are getting near the lode. The dressing, &c., with all other things here, are going on regular.

CLARA.—S. Trevelyan, jun., Nov. 18: The water from the old mine in the 15 is drained, and we have found the deepest part of the mine; we have commenced raising against it, or boring against it with a long borer, and expect in a few days to hole to the above-mentioned winze of the old mine.

COLLACOMBE.—S. Mitchell, Nov. 17: During the last week the rise in the back of the 72, west of the western shaft, has been put up 6 feet, and the lode is worth about 1½ ton per fm. The 62, west of the western shaft, has been driven 6 feet, and the lode is of a highly promising character, being composed of soft quartz, prisms, capels, and about 1 ton of ore per fm. The 40, west of the western shaft, has been driven 4 ft., and the lode worth 1 ton per fm.

COLLEGE MINES.—A. Braithwaite, B. Tucker, Nov. 16: In the 20 north, on the Blue lode, we are now in about 5½ fms., the ground is much easier, and more congenial for lead. The 20 north, on the Red lode, is just the same as last reported; we are now in 2½ fathoms from the shaft—a fine-looking lode. The 20 south is improved, a large lode with fine stones of lead and a good stream of water. Copeman's Winze: The men were set to work again on the lode, and at our price per fathom; they are sinking on the hookan part of the lode; we meet with little or lead, but not rich. The 10 north continues to improve; small stones of lead are met with, but they are not very numerous. The 10 south is just the same as last reported—a continuation of fine stones of lead. The tributaries are getting fair wages. The tribute pitch in the back of the 10 south has much improved that if it continues in the present state we shall have from this pitch about 3 tons of lead by next survey day. We have 3 tons of ore in casks ready for sending away.

CWM ERFIN.—The lode in the 57, going east of the drawing shaft, is much of the same character as last reported, but its bearing is a little more north, which answers to the workings in the level above. The lode in the winze sinking below the 45, about 10 fms. east of the cross-cut, is from 2½ to 3 ft. wide, yielding at this end 10 cwt. of lead ore per fm. I should remark that the lode has been discovered within the last few days by one of those flats this lode is so much subject to. The lode in the 45, going east of cross-cut, is 3½ ft. wide, composed of clay-slate, carbonate of lime, blende, and lead ore, yielding 1 ton of the latter per fm. The slope in back of the 45, and named in my last as east of the junction, has been suspended, in consequence of nearing the old north workings. The slope over the back of the same level, east and west of the cross-cut, has improved; lode from 6 to 7 ft. wide, yielding from 1 to 15 cwt. of lead ore per fm. The slope over the back of this level, 10 fms. east of the cross-cut, continues to yield 25 cwt. of lead ore per fm. The lode in the 32, going east from the cross-cut, is 3 ft. wide, composed of clay-slate, spar, blende, and lead ore, yielding of the latter 1 ton per fm.; the same level, proceeding west from the cross-cut, is in a lode 2 yards wide, yielding from 12 to 15 cwt. of lead ore per fm. A rise has been started in the back of the 32, over the cross-cut; lode from 3 to 4 ft. wide, yielding 15 cwt. of lead ore per fm. We sample, on Tuesday next, 30 tons of good quality ore, being the produce for one month.—Nov. 17.

DALE.—R. Nines, Nov. 19: Since my last we have had a slight hindrance in the winze sinking below the 32, but we are now going on very nicely, and have within the last day or two a fine stream of lead ore, which is a good indication of richness as we go down. No. 3 lode, in the 32 south, is at this time looking very well, and yielding good ore, much better than it has ever done before. The 26 south on this lode is very much improved within this last week, and is producing occasional stones of ore, and has every appearance of being equally as good as the 32, when we get into the same ground. The slopes on Johnson's lode, in the back of the 26, as well as the end, are without much alteration. We have at this time two pitches working in the back of the 13, one of which is yielding good work.

DEVON AND CORNWALL UNITED.—T. Neill, Nov. 17: On Saturday last, our setting-day, the following bargains were let:—The 40 to drive north on the cross-course, by four men, the lode was 4 ft. wide, at 35. per fm. From the indications on the eastern side of the cross-course I think we are near the lode, the hills being mixed up with branches containing blende, &c. The cross-cut to drive south at Bastard's level by six men, stented 2 fms. or cut the lode, at 32. per fm.; the ground continues to look favourable for a good lode when intersected. A slope in back of Bastard's level, west of rise, on the north lode, to slope as directed by six men, stented the month, at 34. 10s. per fm.; lode in this slope 7 ft. wide, yielding 8 tons of ore per fm. There are also four men cutting through the lode for slopes in this rise, stented 2 fms., at 7. 10s. per fm.; the lode is of the same character and production as that in the slope. The north lode to drive west on, in the Midway level, by four men, stented the month, at 12s. per fm.; lode 10 ft. wide, worth 8 tons of ore per fm. The north lode to drive east on, in the Midway level, by six men, stented the month, at 12s. per fm.; lode 6 ft. wide, worth 4 tons of ore per fm. A rise in back of the Midway level east, on the south lode, by six men, stented 2 fms.; the rise to be carried 10 ft. long, and all the lode, which is 5 ft. wide, and producing 4 tons of ore per fm. A rise in back of the Midway level west, on the south lode, by four men, stented the month, at 5s. per fm.; lode 4 ft. wide, worth 4 tons of ore per fm. The middle adit level, to drive east on the north lode, by two men, and two boys, stented the month, at 5s. 10s. per fm.; lode 1 ft. wide, worth 2 tons of ore per fm. A cross-cut to drive north on the cross-course, from the north lode, by one man and one boy, stented the month or cut the lode, at 3s. per fm. From the general appearance of the cross-course, and the quantity of water issuing from the end, I anticipate finding a larger lode in driving this level. A cross-cut to drive north from the south lode by one man and one boy, stented the month or cut the lode, at 3s. 10s. per fathom; this cross-cut is 80 fms. west of that driving from the north lode; and there are two objects in view in its prosecution—proving the lode now driving on in the eastern end so much further west, and also proving whether the north lode, as seen in Bastard's and the Midway levels, holds up to this point. A winze to sink in bottom of the middle level, on the south lode, by two men, stented 2 fms., at 5s. per fm.; lode about 3 ft. wide, worth 1 ton of ore per fm. William and Mary adit levels to drive west by six men, stented 2 fms., at 8s. per fm.; lode about 3 ft. wide, and looking very promising. All the tramming, wheeling, filling, and landing in the mine by 11 men, for the month, at 29s.

DEVON BULLER.—Wm. Neill, Nov. 19: Saturday last being our pay and setting day, the following bargains were let:—The 56 to drive west by six men, at 35. per fm.; the lode in the present and very much disordered—much of the same character as the 44 before driving 10 or 12 fms., where the lode became settled. The 44 to drive west by four men, at 5s. per fm.; lode 1½ ft. wide, containing a quantity of blende intermixed with spots of ore; the rise in the back of this level, for communication to the western shaft, by one man and one boy, at 2s. 10s. per fm. The slope in the bottom of the 32, west of the western shaft, by four men; lode producing 1½ ton of ore per fm. The 32 to drive east by one man and one boy, at 2s. 10s. per fm.; lode 1 ft. wide, yielding stones of ore. The slope in the back of the 20, west of the western shaft, by two men and two boys, at 14. 7s. 6d. per fm.; lode 2 ft. wide, intermixed with one through the lode, by one man and one boy, at 2s. 10s. per fm.; the lode in this end for the last 9 fms. has been disordered, but is again becoming settled, and there is no doubt of its becoming its regular size, which has been the last 20 fms. about 2 ft. wide, producing ore more or less throughout—a very promising lode.

DEVON BURRA BURRA.—J. Lord, Nov. 19: We have cut through the lode in the eastern end, which is 12 ft. wide, letting out a large stream of water. This has lessened the water at White's shaft one-third. We are driving on the south part, which is much easier than the north, and is showing more ore. We find rich spots of grey ore in the lode. There is no doubt that as we drive east we shall find some rich deposits. No lode has been discovered as it has been; the part of the lode we are carrying is composed of strong capels and spots of ore.

DEVON GREAT ELIZABETH.—W. Williams: The lode in the end driving west is just as last reported. The water has become so quick in the shaft we are obliged to suspend operations for the present. We are engaged in dressing the ore at surface, with all the speed possible.

DOLWEN.—P. Evans, Nov. 16: We have now to put up a balance-beam to bring the rods up over the mountain from the wheel, a few days will complete this, and put it in good working order; there being ample power in the wheel, there is no fear of its not working properly.

EAST CARN BREA.—T. Glanville, Nov. 18: Nothing new to report this week.

EAST POWEY CONSOLS.—J. Dale, Nov. 16: The cross-cut is now extended 39 fms. 1 ft.; the ground has recently improved, and is now producing spots of yellow ore; it is letting out more water than we have ever seen since its commencement. I hope the time is not far distant when we shall be able to report that the lode is cut. The engine works well, and the consumption of coal is very little.

EAST HENDER.—N. Glymo, Nov. 17: We are sinking under the adit, and are down about 5 fms.; the lode is 3 ft. wide, producing good stones of copper ore, and a great deal of blende. The appearance of the new lode, west from the west shaft, is very encouraging at such a shallow depth—producing stones of ore. We shall take down the lode to-morrow, and I will report full soon next week.

EAST PROVIDENCE.—W. Hollow, T. Uren, Nov. 17: The engine shaft is cutting down below surface two men, at 30s. per fm. The eastern adit is driving west by four men, at 45s. per fm.; the lode here is 2 ft. wide, composed of spar, capel, and prisms, producing tinstuff of low quality; it has a very beautiful appearance, and a more promising lode to the depth it is wrought on cannot be seen in the St. Ives district; it is our firm conviction it will yield rich tin at a depth. Wheel Mount adit is driving south from Chapel shaft, on Comfort lode, by four men, at 6s. per fathom; the lode is improved in size and quality; it is 12 in. wide, worth 3s. per fm. This adit is also driving west from Chapel shaft on the Standard, by two men, at 20s. per fm.; the lode here is 18 in. wide, producing low quality tinstuff.

EAST ROSEWARNE.—John Delbridge, Nov. 14: In the past week the shaftmen have been easing and dividing the engine-shaft from the 22 to the bottom of the shaft; in future we intend driving the shaft daily from the bottom. In the 20 east the lode is 1 ft. wide, yielding a little ore, but to value. In the 22 west the lode is small and poor; in the 22 east, on north lode, the lode is in two parts, 6 in. of the north part

a good branch of ore; in the 22 east, same lode, the lode is 1 ft. wide, tribute ground. In No. 1 winze there is a good lode 10 in. wide. In No. 2 winze the lode is 1 ft. wide, stoned of ore. In the 12 east the lode is small and poor. In the 6 we have tribute ground. In the south adit no change to notice. In sinking the west shaft from the 13 to the 22 the ground is favourable. We purpose sampling about 50 tons of copper ore on the 22nd inst. We have carefully looked through the pitches throughout the mine to-day, and calculate, from present appearances, to sample the same quantity (50 tons) in two months' time, which will be in January.

EAST WHEAL PALMOUTH.—W. Burrows, Nov. 18: The sumpmen are engaged cutting a pit in the 30, but we have not seen the east lode there yet. The 20, north end, is suspended to put a cross-cut in west to cut the old lode. We have from 2 to 3 fathoms cross-cut to intersect the old lode that Northey's winze is sunk on. Desbie's stopes, in back of the 20, are worth 18 cwt. of lead ore per fathom. Chennell's stopes, in bottom of the 10, are worth 3 tons of lead ore per fathom. Gray's stopes, on Chennell's lode, are worth 5 cwt. of lead ore per fathom. Northey's winze is discontinued until the cross-cut is under to lead down the water.

EAST WHEAL ROBERT.—R. Collum, Nov. 19: The rise is now up about 3 fms. The lode has not been so good lately as it was, but the ground is favourable for rising, being set at 20s. a fm. We are also getting on with cross-cutting in the eastern adit.

EAST WHEAL RUSSELL.—John Goldsworthy, Nov. 19: The ground in the 33 is somewhat more spare for driving. The lode in the 66, east end, is split into three parts in the back of the end; the branches have come together in the bottom for about 3 feet high, and the lode is of a very promising character, worth about 2 tons of ore per fathom. The slope east of Williams's winze is worth 3 tons of ore per fathom. We have set a slope west of Williams's winze, but shall do so in three or four days, when I hope we shall have good lode. The tributaries in the bottom of the 35 in sinking have met with a good lode of copper ore, worth from 2 to 3½ tons per fm. of good quality ore. Nothing new in any other part.

EAST WHEAL TOLGUS.—The lode in the 46, driving east of the engine-shaft, on Redruth Consols lode, is without any alteration to notice since last report. The lode in the 34, driving east of the engine-shaft, is 1 ft. wide, consisting of spar, jack, and good stones of ore, and is promising in appearance. The lode in the 23 fathom level, driving east of the engine-shaft, is 2 feet wide, containing some stones of ore. The lode in the 12 fathom level, driving east of the engine-shaft, is 18 inches wide, yielding 1 ton of ore per fathom. The lode in the rise in the back of the 12, east of engine-shaft, is 2 ft. wide, yielding 1 ton, or rather better, of ore per fm. for the length of the rise—11 ft. We have not taken down the lode in the stope in the western end of the rise from the 12 to the 22. There is no alteration in the ground in the 12 cross-cut south since last reported. The lode in the 30 end, driving east of the flat-rod shaft, on North Buller lode, is small and unproductive.

GAWTON COPPER.—J. Gill, Nov. 18: The lode in the 50 is become more settled, it is from 18 in. to 2 ft. wide, and is yielding some good stones of copper; the stratum in this level is very congenial for mineral. In the 35 end we have commenced to cut through the lode. The lode in the end below the 24 is still large and ore. The stopes are looking much the same as for some time past—producing good work. We shipped yesterday 54 tons of mandle, at 12s. per ton.

GREAT CARADON COPPER.—John Spargo (of Great Sheba, Great Tregone, and Devon Burra Burra Mines), Nov. 16: This is a very extensive, being upwards of ½ of a mile on the line of the lode, and ¼ mile in breadth. The geological position is doubtless one of the most favourable fields for mining of any in the country, being situated at the eastern base or foot of the well-known granite hill—Caradon. 2. It is most probable that most if not all South Caradon lodes pass through this property, it being within a short distance of the well-known South Caradon Mine. The lodes are laid open in a micaceous slate, and although the stratified rocks, both north and south and runs east and west all the length and breadth of the east, yet it is evident that the clay-slate will predominate, and that, at a very shallow depth, the clay-slate, like every mine, will be the granite, is not less subject to strike, which cross the lodes in an oblique direction, and although the top cleavage—the micaceous slate—may not be found advantageous to the lode, yet I do not scruple in saying, as the mine deepens into the clay-slate before mentioned, these elvans will be very advantageous to the several lodes already laid open in this mine. 4. There are several lodes already laid open parallel within a few fathoms of each other, and at a deeper point, after leaving the micaceous slate, these lodes will be found together, and most probable, when they form a junction with the clay-slate, rich deposits of ore will be discovered. In conclusion, I beg to say that as far as the mine is already developed, the agent has clearly laid open every lode for the inspection of any one whom the proprietors deem proper to select.

GREAT CRINNIS.—E. Shaw, W. Woolcock, Nov. 16: We have three pitches working at Daniel's shaft, in the 10, 20, and 30, valued at 2s. 17s. 6d. per fm. One pitch working at Hannah's shaft, in the 17, on the middle lode, valued at 2s. 15s. per fathom. Two pitches working at Catherine shaft, in the 31, worth 4s. 2s. per fathom. Three pitches working east of old sump shaft, in the 17 and the 24, worth 8s. 10s. per fm. average value. Three pitches working west of Cornish's shaft, in the 24 and the 31, valued at 6s. per fm. The sumpmen's shaft, in the 20, and the pitch adjoining, are now worth 6s. 3s. per fm.

GREAT SHEBA CONSOLS.—John Spargo, Nov. 17: In taking down the lode in back and bottom of the 40 we have discovered a good course of ore, altogether north of the ground stopping above. We have had to-day rocks of ore weighing from 15 to 25 cwt., and the quality is better than we have hitherto seen. We have been dressing the lode in the 10, below adit, at Kelly Hole, and shall take it down in the course of a day or two.

GREAT SOUTH TOLGUS.—J. Daw, Nov. 18: Saturday last was our setting-day. The lode in the 80, east of new shaft, is 2 feet wide, composed of mandle, quartz, and a little copper ore; set to four men, 4 fms., at 3s. 15s. per fathom. In the same level west the lode is 2 feet wide, producing a little ore; set to six men, 3 fms., at 2s. per fm. Set the engine-shaft to sink below the 70 by nine men, 4 fms., at 14s. per fm.; also cross-cut to drive north and south by two men and two boys in each, at 3s. 15s. per fm. The lode in the winze below the 60 is 5½ feet wide, producing 7 tons of ore per fm.; set to two men and two boys, 4 fms., at 3s. 15s. per fm. In the 40 the lode is 1 ft. wide, producing 2 tons per fm.; set to two men and two boys, 4 fms., at 3s. 15s. per fm. In the 30 the lode is 3 ft. wide, composed of jack, mandle, and copper ore; set to two men and two boys, 5 fms., at 2s. per fm.

GREAT WEST SORTBRIDGE.—J. Richards, Nov. 19: The engine-shaft is down the required depth for a 50 fm. level, and the top pit has been cut; the lode will average 2 ft. wide, containing capel, mandle, and a little ore. The 50 is being driven south-west for the purpose of intersecting any other portions of the lode standing in that direction. In the 30 west the lode is 3 ft. wide, containing a greater proportion of quartz, with capel, mandle, and stones of ore.

GREAT WHEAL ALFRED.—M. W. Mitchell, Wm. Arthur, Nov. 14: The lode in the 180, west of Copper-house shaft, is 6 feet wide, worth 7s. per fathom. The lode in this end has a beautiful appearance, and it is still our opinion there is a course of ore in connection with this not far distant. The lode in the 170 west has been taken down, which is from 3 to 4 feet wide, worth 6s. per fathom. In the 160 east, on the south part, for 4 ft. wide, it is worth 2s. per fathom, leaving a good ore lode to the north about the same breadth. The lode in the western end on this part is fully 4 ft. wide, worth 15s. per fathom. No change in the cross-cut south at this level. The lode in the 145 west, on the north part of the lode, is producing stones of copper ore. The lode in this level east, on the south part, is worth 8s. per fathom.

GREAT WHEAL BADDERN.—J. Jenkin, Nov. 17: The 61 fm. level and still continues hard for driving, and lode much the same as when last reported. In the stopes in the bottom of the 31, east of No. 4 winze, the lode is 15 in. wide, yielding about 1½ to 2 tons of lead ore per fm. In the stopes west of No. 4 winze the lode is 15 in. wide, producing about 1½ to 2 tons of lead ore per fm. In the 51 end, driving east, the lode is 1 foot 6 in. wide, worth 8s. 6s. per fm. We have commenced sinking on No. 5 winze, in the bottom of the 51, 10 fms. east of No. 4; the lode is 1 ft. wide, producing ½ ton of lead ore per fm. Our surface and other operations are much the same as usual.

GREAT WHEAL BUSY.—J. B. Pascoe, Nov. 14: The water is 91 fms. below the deep adit. At Harvey's engine-shaft the 90 is dry in the eastern and western parts of the mine. We have some good runs of ore above the 90, which will let at low tribute, of which we will try some next week, after we have explored the level through. You may now consider the mine in work, as this is the last level. We have at present 506 tons of copper ore for sale, and shall have 10 tons of tin in 10 days from this date. Our prospects are improving weekly. I hope after another two or three days to be able to report monthly, of making a good quality than the present, and 10 tons of tin.

GREAT WHEAL FORTUNE.—Joshua Daniel, Richard Pryor, Nov. 18: Harvey's shaftmen, at a level of 15 fms. below the deep adit, the cross-cut in this level is driven south of shaft 3 fms. 3 feet, and intersected the north part of the lode, which is saving work, but is not sufficiently cut through to report any particulars. In the 70 fathom level, west of engine-shaft, we have driven north 2 fathoms, cutting through the lode, the north part of which is not seen. The cross-cut in this level is driven south of the main lode 26 fms. In the 60 fathom level, east of Copper-house shaft, the cross-cut is driven north 13 fathoms. The 40 fathom level, east and west of the cross-cut, on Conquer branches, are opening tribute ground in the stopes in back of the 30, west of the cross-cut, on these branches, are worth 6s. per fm. The 20 west, on these branches, is worth 6s. per fm. The stopes in bottom of the 30, on the north lode, are saving work. Carnmeal engine-shaft is drained and cleared of stuff 7 fms. below the deep adit level. The skip shaft is sunk 2 fms. 3 ft. below the deep adit; in the stopes in back of this level, east of the new shaft, the lode is 4 feet wide, worth 7s. per fm. The tribute department is just as last reported.

GREAT WHEAL VOR.—M. W. Martyn, Nov. 14: The pumping and winding engines are working well, and the water is in fork to the bottom of the lift. Boulder shaftmen have been busy engaged cutting ground for making the shaft its full size below the 22s, and fixing strong timber to support the same. The ground in the 115 cross-cut, on Wood's sump, towards Treasurers' lode, is more favourable for progress, and letting out more water than heretofore. At Walsal Metal, the sinking of the engine-shaft has not progressed this week as fast as we could wish, in consequence of the paring of the main rod in the 60, which is repaired by a new part or piece of rod, and the water is in fork. The value of the different stopes and ends is much the same as when last reported. The ground in the cross-cut in the 60 and 70 is favourable, and the men making good progress.

GWYDYR PARK CONSOLS.—H. Rawson, Nov. 19: In driving west on Cross Mawr the lode is about 15 in. wide, with branches of ore running through it; the quality is not quite so good. I expect to get into something better when we reach the junction of the Gorse lode, which I hope to do in about 3 fms. further driving.

HAWKMOOR.—Capt. Richards, Nov. 16: At the engine-shaft, we have sunk by the side of the lode 3 ft. this last week; the branch on the south part of the lode looks exceedingly well. In the 30, west of the cross-course, the lode is 2 ft. wide, producing some good work for copper, and the leader part appears to open out wider as we get off the cross-course. The stopes in the back of the 40 are rather improved this last week. The 20 east has a promising appearance. At West Hawkmoor, the ground is a little improved for boring within this last few days.

HOLMBUSIL.—In the 145 west there is no change in the lode since last report; but a favourable change having taken place in the ground, we expect an improvement in the lode. The lode in the end driving east, on the south part of the lode, will yield about 1½ ton of ore per fm. In the 145 south, on the lead lode, the lode is still divided by a small horse of kyllas; the eastern part of the lode is yielding good stones of lead ore, imbedded in fluor-spar. In the 145 west, on new copper branch, the lode has not been taken down this week. In the 160, east of diagonal, the lode still holds good, and is producing full 1½ ton per fm. The lode in the end driving west, in this level, from where intersected, is producing 1 ton of ore per fm. The stopes in back of this level yield 1½ ton of ore per fm. In the 160, west of diagonal, the lode continues to yield a little ore, of rich quality, as usual. In the rise in back of this level, which has been done, the men having abandoned their contract; it is now set to another company. The lode in the end in the 145, on the flap-jack, appears to be generally improving in size as the level is extended west upon it. In the 132 south, on lead lode, in driving a short cross-cut west from this lode, a branch 1 ft. wide was intersected, thickly interspersed with lead ore (most probably the new lead

branch seen in the 133 north, crossing the copper lode), inclining towards the old or main lead lode. We have resumed driving on the main lead lode, in the hope of soon reaching the point where they are united in one lode.

KESWICK.—J. Postlethwaite, Nov. 14: In the 50 north the lode is worth 14 cwt. of ore per fm. In the south end it will yield 10 cwt. of ore per fm. The rise in the 50 north is worth 12 cwt. In the 40 north the lode is worth 10 cwt.; No. 1 stope, in this level, 10 cwt.; No. 2, 8 cwt.; and No. 3, 3 cwt. of ore per fm. In the 40 south we have two stopes, each worth 10 cwt. of ore per fathom. In the 30 north we have the following stopes:—No. 1, worth 10 cwt.; No. 1, 10 cwt.; No. 2, 10 cwt.; No. 3, 8 cwt.; and No. 5, 10 cwt. of ore per fm.

LACKMORE.—To-day I have set the following pitches:—1. A pitch under the 10, 10 ft. of the engine-shaft, to two men, at 4s. 5s. per ton.—2. A pitch above the 10, 10 ft. of the engine-shaft, to four men, at 4s. 5s. per ton.—3. A pitch in the adit, east of Kelly's shaft, to two men, at 4s. 10s. per ton; the takers to pay 10s. per ton for dressing, and the usual price for candles, powder, smith's cost, and other stores. I am hoping in a day or two to set a couple of pitches more; and no doubt when the drawing-machine goes to work, and clears out some of the places, we shall be able to start several old pitches: this is the opinion of all parties. I am glad to say that we are going on well with the drawing-machine, which is one of our important points, and if we can obtain the cranks from the foundry in proper time we shall be soon prepared for drawing. We are now securing the ends of the shaft, and in a day or two shall commence clearing below, towards the 14. The stuff we draw from this place is poor, but contains a portion of ore, which I think will pay for dressing. The stuff is very dirty, and it is impossible to make any selection, so that we have to save the whole.

LEWIS.—Wm. Bishop, W. W. Martyn, Nov. 18: We have completed the shaft-tackle and pulley-stands at skip shaft, and are drawing away the stuff with great speed. The 90, east of cross-course, is just as last reported, worth 10s. per fm. The 110, on the south lode, is looking well. Our shaftmen are engaged about the preparatory work for sinking the skip shaft under the 110.

MERLLYN.—J. Trevelyan, Nov. 19: We have no particular change to report on our bargains since my last. The lode at the new shaft is not yet cut through, as we are sinking our shaft perpendicular, and the lode underlies very little. The portion yet cut presents itself very encouraging, and leaves no doubt in my mind but that it will make a large body of ore. We have had some very good stones of lead cut of it, and being now only 9 fathoms from surface, I firmly believe to give you far better encouragement are long from the part of the mine. The tribute pitches in the old part of the mine are without change, producing sufficient for the men to obtain the average wages of the country, at 9s. per ton. Four men have taken a new pitch to-day from the part of the mine called Victoria, at 9s. per ton, from which we calculate on receiving a little assistance in our return. The 5 tons sold last month, as reported, weighed 5 tons 5 cwt.—which was sent off.

MIXON.—R. Nines, Nov. 19: Everything at Mixon is much the same, and the new trial holds out well; we put in a railroad to the shaft to convey ore to the floor, and have commenced dressing it.

MYDRIM SILVER LEAD (Mydrim, Carmarthenshire).—T. Williams, Nov. 18: We cut the lode in the deep adit on Monday; it is 3 feet wide, composed of gossan, flookan, and spar, spotted with lead, copper and mandle; the walls are regular, but I shall be able to say more about it in a few days.

NETHER HEARTH.—W. Vipond, Nov. 14: There is no ore in the level at present, but the vein is strong and promising—a great width, and ground rather harder. The stopes have been poor this week, yet No. 2 has improved a little the latter part of the week. Two of the men who have been stopping will commence to work a flat of ore to the Sun of the vein, which I think will prove richer than anything we have had lately. The carrier has taken to Alston for next sale 1 ton 2 cwt. of ore, and we have 3 tons more ready for delivery.

NEW CROW HILL.—Nov. 14: The captain with whom we had arranged last week to carry a cargo of mandle to the Messrs. Harding, and who was to get up to Woodend only at the top of spring tides, refused to sign the charter. We have, however, got another of about 100 tons, which is loading to-day, and will finish on Tuesday. We have sent a sample of 4 further parcels of jack to the buyers of the 65 tons, which we have no doubt they will take, and we can then get a vessel to carry the whole. We are pushing on the dressing as fast as possible, and hope to get the lead ready in 10 days. There is no alteration in any of the workings that requires to be noticed. All is going on as favourably as last reported.

NORTH BASSET.—T. Glanville, Nov. 19: The lode in the 82 is 3 feet wide, producing 2 tons of ore per fathom. The lode in the winze sinking under the 72 is yielding 2 tons of ore per fathom. The lode at Grace's shaft is yielding 2 tons of ore per fathom. Other parts of the mine are without alteration.

NORTH FORTESCUE.—Wm. Verran, Nov. 18: This young mine is opening up most splendidly. The large lode, which was cut some few months ago by costeaning, has now been traced nearly 300 fms. on the back, and still continues to open, varying in size from 4 to 6 feet, carrying a beautiful ore, which in every case contains silver, varying from 10 to 15 oz. to the ton. As we have now traced the lode down towards the lowest point in the sett, we shall soon commence driving an adit on its course—north, when we shall prove the value of the gossan for silver, as we go into the hill, and we hope to discover large deposits of lead in addition; by driving this adit we shall gain 40 fms. of backs, and shall be proving the lode through the whole of the ground; and, as Fortescue continues to look so well, we may expect similar results.

NORTH FRANCES.—P. Hosking, Nov. 14: The sumpmen have completed plunger lift, and put it to work to-day. We shall now begin to sink Eales's shaft. The bottom ends are much the same as last week. The lode in the 36 is 2 ft. wide, and we have good grey ore in it. The masons are building the whim engine-house as expeditiously as possible.

NORTH FAY.—R. Williams, Nov. 18: The men are engaged in clearing the 30, and preparing Gill's shaft for drawing from thence, so as to enable us to drive that level upwards under the rich deposit of tin ground gone down in the bottom of the 20, to which point in the 30 there are 19 fms. to drive, and I have no doubt of this proposed driving opening out a large piece of profitable tin ground. Up to this time we have not discontinued stopping in the back of the 20, which stope is quite as good as at any former period, and the prospects of the mine are really very good. Certain unfounded reports having been circulated by parties in London and elsewhere respecting this property, eminently calculated to damage it in the estimation of the public, and injurious to the interests of the mine, I beg to refer those who have appeared in the Mining Journal of last Saturday, and I here most distinctly state that that report is substantially correct, and by it I am willing to stand or fall. The statements therein can and will be borne out by men of known probity and considerable experience as tin miners. I would here take the liberty of advising the shareholders in this mine to take no notice of the reports in circulation.

NORTH TRELEIGH.—W. Tom, E. Ellison, Nov. 18: The lode in No. 2 level is coming down at present very rich, being estimated at not less than 50l. a fm.; stopping by six men, at 2s. per fm. Our winze from said level is now down 4 fms., and we shall shortly cut the lode again in depth. We shall be able to return to floor now an average of upwards of 1 ton of ore per day from one level, should our lode continue as good as at present; it is carrying a leader of rich

a lot of ore when we get it well ventilated, and a fire-whim to haul away the stuff. I do not like to say too much, but I am not afraid to challenge any mine in Cornwall to break two samples of better copper than we can in our 70 and 82. As to our not sinking the shaft, I do not think we are wasting time. You well know that when shaft is down to any level it must be divided and casted down. Lift fixed, footway put in, old penthouse taken out, and new road put in to make that level safe: that was our last month's work. Now, before you begin to sink, you must have a shaft and winch-plate out, brow east down, penthouse put in, fork sunk, or place for claters, and ends driven away, that you may not blow down your windlass by blasting. Now, you will see we have not been idle this month. We shall open 7 fms. of ground, out shaft-plate, and sink part of the fork. I well know that we have no time to lose, for I believe there is plenty of copper deeper; we are only just upon the top of the ore.

Nov. 14: We shall begin to take down the lode in the 70 on Wednesday next, and also in our 82.

PENTRE LYGAN.—A. Francis, Jun., Nov. 19: At Woodland's shaft we have penetrated the rich bearing Chert, which from its character, being strongly impregnated with minerals, indicative of a body of ore, leads us to encourage sanguine hopes when we intersect the veins, so profitably worked to the west of our boundary. One of the before-mentioned veins we judge from appearance must be near the shaft, so that we may in a short time have to report good news.

POLBRENN.—Nov. 17: We took down the lode in the 22, east of Dorcas's shaft, at night for the first time since setting day, but I am sorry to say it is very poor; this is the first piece of lode that we have had in this end since we commenced that will not pay for stopping; there is still a strong capel in the end, but no tin in it. Tregey's lode in the 12, west of sump, has been small, about 2 or 3 in. wide, until the last few days; it is now larger and harder, so that it will stand to drive by the side of it in the kilas. We expect this lode to open wider from the appearance of it in the end, it is pretty good work, and the ground looking very kindly. There is no lode north notling in the 32, east of sump, yet. The ground in the 32 cross-cut, south from sump, is still good, but no lode yet; I think we must be getting pretty near it. The winze on Tregey's lode, under the 12 west of sump, is down to within a few feet of the 22, and as it is rather expensive for sinking now it is down so deep, we have discontinued sinking it, and have put the men down to cut some ground in the end of the engine-shaft for a plat, &c., to prepare for driving the 22 to cut the lode, which is very near, and therefore on the course of it; this lode has not yet been seen anywhere in the 22, it is small in the winze under the 12, but is very good work. We intend taking the men from the 32, east of sump, and put them to drive the 22 west, on this lode, and take the sumpmen (who are now cutting the ground to prepare for driving the end) to prepare for sinking Dorcas's shaft. We have now five pairs of tributers at work, four of them are working well and, we think, getting wages (this is in the old ground). The stamps are set to work on the burrow stuff to begin with; we want to fill up the crevices and loose ground before we begin to stamp the work, it being all new ground plenty of the tin would get down in it. The water is as yet very small, nothing like enough to work half the beds. The stamps to the head of us have not yet begun to work, and their leads on that account are left full, and grown together with grass, &c., consequently the water is flowing over the banks in every direction, and if they do not begin soon I think we shall be able to get a supply from another source.

PRIDEAUX WOOD.—J. Puckey: At this mine we have been able from the influx of surface water to drain it, and resume the working. The only thing new of note to mention is that the ground in the 54 end is becoming much easier for driving, consequently we shall soon get under the tin ground in the level over.

QUEEN OF DART.—P. Hawks, Nov. 17: Saturday last being our setting-day the following bargains were set:—The 30 to drive west by three men and three boys, 2 fms. or the month, at 71. 10s. per fm.; the lode in this end is about 10 inches wide, and unproductive, but presents a kindly appearance, and lets out plenty of water. The east end in this level is in consequence of the lode being small, and the poor. We shall, by continuing the sinking of the boundary shaft, prove the value of the piece of ground that the 30 east has been driving towards, therefore the sum that would be required to drive it will be saved, particularly as the end is at present poor. The 20 east to drive by three men and three boys, 1 fm. or the month, at 94. per fm.; I find the ground here to be more favourable for driving, and a reduction of 34. per fm. has been made in the price, and a greater one still is likely to take place; the ground is much easier, and promises further improvement. The lode at this point is 6 in. wide, composed of capel and spots of copper ore, but not to value. The stamps in back of the 20 are exhausted, a horse of kilas having divided and split up the lode; the stamps have been offered to parties to work them on tribute, but refused. The boundary shaft to be sunk by six men, 1 fm. or the month, at 104. per fm.; the lode here is 1 ft. wide, composed of spar and copper ore, but of little value. We are progressing with the dressing, and hope to get started to Tynes by Saturday night 30 tons of copper.

REDMOOR.—T. Taylor, Nov. 16: Since last report we have taken down the lode in the 20, which is a little improved, yielding about 6 cwt. of lead per fm. The lode in the 70, on Kelly Bray, is not so productive as when last reported, owing to some branches which have crossed the end, the lode at present is small. We have put the men who were clearing up the old workings between the 70 and 80 to rise in the back of the 80, as there is a greater advantage in putting away the stuff. We have about 4 fms. of whole ground to rise through; they have a good stone of ore in the back. The building of the whim-house and other works are progressing as favourably as we can expect.

RIVER TAMAR.—J. Cock, Nov. 16: There is no alteration since my last report. ROSEWALL HILL AND RANSOM UNITED.—Paul Roach, Nov. 15: Since the 11th inst., we have built 5 ft. on the walls of the steam-whim house, cleared and secured 4 ft. of the engine-shaft, which at this time is very wide, and detrimental to our getting down with the speed we had anticipated; yet every effort is made to get down as fast as we can; this being at present the work of the greatest moment. We are also making preparations for the horizontal rods from the engine-shaft to Ransom, which will soon be ready for the erection of the rods.

ROUND HILL.—J. Keebone, Nov. 18: The lode in the new engine-shaft sinking below the 40 is 6 in. wide, with spots of ore in it. In the 40 north, at Betton's winze, two lodes have formed a junction, where it is about 3 1/2 ft. wide, producing saving work. There is an alteration in the 40 south, nor in the slope below the 30 of ore of Matthews's winze, to notice since last report. The lode south of Betton's winze, below the 30 north, will yield 20 cwt. of ore per fm. The tribute pitches are much as usual.

STINEY WHEAL BULLER.—S. J. Reed, Nov. 14: Since my last we have cleared the adit which has been brought up on Carmichael lode 60 fathoms; from this point we shall proceed northward, and prove the lodes in our sett at a depth of about 30 fms. There is no change to remark in the 60, east of cross-cut; driven 5 feet in the past week. Other things are without alteration.

SORTIDGE CONSOLS.—J. Richards, Nov. 19: Hitherto's Engine-shaft: In the 62 east the lode is 5 feet wide, containing capel, muddle, quartz, and good stones of ore. In the 62 west the lode is 4 ft. wide, and also yields good stones of ore. In the 50 west the lode is from 2 to 3 feet wide, composed of quartz, muddle, a little gossan, and very rich in tin; it is very promising. The lode on Crossman's winze, sinking below the 50 east, is still worth for the length of sink (9 ft.) 4 tons of ore per fm. In Jeffry's winze, sinking below the 50 east, and east of the former, the lode is worth for length of sink (9 ft.) 3 tons of ore per fm. The lode in the slopes in the back of the 50 east is worth from 3 to 4 tons of ore per fathom. In the 40 cross-cuts north and south, west of the cross-course, nothing of importance has as yet been met with. In the back of the 40 west, a little to the east of the cross-course, a rise is being put upon the lode, but as yet no lode has been taken down.

SOUTH BEDFORD CONSOLS.—James Phillips, Nov. 19: The lode at Red Whim shaft is still looking very promising, and continues to yield good saving work. The lode in the 62, east of the shaft, is 3 ft. wide, producing from 1 to 2 tons of ore per fm.; in this level west the lode is 3 ft. wide, producing 2 1/2 tons of ore per fm. The 36 east, on the south lode, continues to yield good stones of grey ore. The lode to sink in bottom of adit level, which we hope will lay open some productive ground.

SOUTH BOG.—S. Morris, Nov. 19: I have just come from underground, and one of the directors, and I am pleased to say there is a considerable improvement in the 35 end south, now worth 12 cwt. of lead per fm. The 45 is also improving south.

SOUTH CLIFFORD UNITED.—Capt. Pope: The Trebiddle adit is about 16 fms. south of the last shaft, and from its appearance, very near the lode; the ground is easier for driving, and letting out water. The lode No. 6 is about 15 in. wide, composed of capel, quartz, and muddle, with a promising appearance. All other operations are progressing satisfactorily.

SOUTH GREYVER.—J. Delbridge, E. Chagwin, Nov. 16: The sumpmen are engaged sinking a winze from the 84 to the 94; the lode is 20 in. wide, tribute ground. In the 91 west the lode is 20 in. wide, yielding from 1 1/2 to 2 tons per fathom. In the 44 west the lode is 2 1/2 feet wide, grey ground. The 74 west, 74 rise, and 54 rise, are yielding 1 1/2 ton per fm. The 34 west and 34 rise are yielding 2 tons per fm. Our tribute pitches throughout the mine are without change.

SOUTH DOLCOATH AND CARNARTHEN CONSOLS.—W. Roberts, Nov. 17: Nothing new to report this week.

SOUTH LADY BERTHA.—W. Goss, Nov. 19: Up to this time we have not holed the shaft to the adit, but it is completed this week, as we have now men rising in the back of the adit against the lode; the lode is producing good work for copper ore, and the lode in the shaft is producing gossan, with rich stones of ore, am preparing to have the smith's shop and the other buildings put in repair. I hope to get home the crusher next week, and the ore we have and what we are now breaking will warrant the vigorous prosecution of the mine.

SOUTH WHEAL TOLGUS.—We have set Mitchell's engine-shaft to sink this week below the 110 by nine men, at 261. per fm. The ground in the 110, driving south of Mitchell's, is harder than when last reported. The lode in the 110, driving west of Mitchell's, on Youren's lode, is 20 in. wide, yielding 1 ton of ore per fm. The lode in the 100, driving west of Mitchell's, is 16 in. wide, yielding 2 tons of ore per fm. The lode in the winze in the bottom of the above-named level is 1 ft. wide, yielding 1 ton of ore per fathom. We have three stops working in the back of the 100, west from Mitchell's, each yielding 2 tons of ore per fm. The lode in the 90, driving west of Mitchell's, is small and poor. The lode in the winze sinking in bottom of the 90, west of Mitchell's, is 15 in. wide, yielding 1 ton of ore per fm. The lode in the 78, driving west of Mitchell's, is 1 ft. wide, poor. The ground in the 78, driving north and south of Mitchell's, is without any alteration to notice since last reported—moderately easy; the same will apply to the 100, driving south of Mitchell's. The lode in the 90, driving east of Mitchell's, on the south lode, is 3 ft. wide, yielding 3 tons of ore per fm. The lode in the stop in back of the 90, east of Mitchell's, is 15 in. wide, yielding 1 1/2 ton of ore per fm. The lode in the 78, driving east of Mitchell's, is 1 ft. big—unproductive. The lode in the 54, driving east of Mitchell's, is 1 ft. wide—unproductive. The lode in the 54, driving west of Morcom's, is 18 in. wide, poor. The lode in the 30, driving west of Morcom's, on the south branch, is small and poor. The lode in the 30, driving west of Morcom's, is 1 ft. wide, consisting of spar and peach, producing occasional stones of ore. The lode in the 10, driving west of Morcom's, on the south branch, is 15 inches wide, and rather disordered by a limb of the cross-course.—Nov. 14.

ST. AUSTELL CONSOLS.—R. H. Williams, Nov. 14: Our south cross-cut in the 45 is now near a dropper lode, and there is every indication of it in the present end. We are getting on with another axle. Our dressing floors are being got on with. The western part of the mine is looking encouraging at present.

TAVY CONSOLS.—R. Williams, Nov. 19: There is nothing new to report here since the general meeting. We are busy sending down the 7-in. plunger-lift in the 80. TEES SIDE.—R. Bray, Nov. 14: The Day level, driving east at Metal Band, is without much alteration to notice since last reported. The lode and ground being still of a favourable character for yielding mineral; the bottom of the level, for 15 in. high, producing stones of lead. The slope west of Millican's sump, under the Day level, on the same lode, is not so productive for lead—poor. By the end of next week we shall have about 10 bins of ore ready for sale. All the wood and ironwork for the stamps is completed, and carried down to Metal Band last evening, and the carpenters are now

making the catch-plate, and on Monday, if weather hold up fine, they will commence in fixing the work; I hope by the end of next week they will be closing up for working. Our progress has been very slow in forking the water at Tees Side, at Providence shaft. In consequence of not having a full supply of water the working average of the wheel has been about 3 1/2 revolutions per minute. The lode to be subjected to working the wheel the water is under the 30, and hope by Monday we shall commence in clearing up the ore in the bottom of the shaft left in when we last worked this place.

TREWANE UNITED.—Nov. 16: The engine-shaft is about 3 fms. 4 ft. below the 30. The lode in the north end in the 30 is not so large as it was, but still producing good saving work, and I hope by the early part of next month to have from 2 1/2 to 3 tons of good quality silver-lead ore ready for the market.

TREWETHA.—T. Richards, W. Rowe, Nov. 18: The 70 south is worth 41. per fm.; the north end is producing some saving work. The 60 north is worth 52. per fathom. The winze sinking in the bottom of the 60 north is worth 51. 10s. per fm. In the 50 north there is no change. The stops are without any important alteration. In consequence of being disappointed of a wagon, we shall not be able to get home the boiler until about the latter end of the week. The new pitwork is fixed and made complete to the 70; we shall get down the lift below and resume the sinking of the engine-shaft next week.

UNITED MINES.—J. M. Champion, Nov. 17: We have commenced sinking our engine-shaft under the 35; we have set 2 fathoms to sink and cut a trip-plate, 12 feet by 10, for 421. per bargain; after this is completed we shall set 10 fms. more, which will make the 12 fms. lift, which will leave 10 fms. of backs. The lode in the 35 is worth full 201. per fm. for tin; I cannot see much change in the character of the lode for some time past; we are laying open good tribute ground, which will leave a profit to the adventurers. The pitches in the upper levels are turning out much as usual; some of the poorest pitches I have stopped. We have commenced burning our tin for Oct. month; I shall not be able to state the quantity until we have dressed up the tributers' tin-stuff.

VALE OF TOWY.—S. Harper, T. Harvey, Nov. 17: At Clay's engine-shaft, sinking below the 50, we hope to reach the 60 in about a week or ten days; the appearance of the ground under the lode is everything that could be desired for bearing lead. In the 50, north of this shaft, the lode is 3 ft. wide, much the same as last reported, yielding 6 cwt. of lead per fm. In the same level south the lode is 4 1/2 feet wide, a splendid looking lode, yielding from 8 to 10 cwt. of lead per fm. We have not seen such a fine lode at this point since we left the 10 fm. level. Field's shaft is again drained; we have resumed the sinking, and hope to reach the 50 in a few days; the lode is 5 feet wide, producing some splendid lumps of lead, from 30 to 40 lbs. in weight, deposited in gossan and other congenial substances for lead. In the 40, south of this shaft, the lode is 3 1/2 ft. wide, very kindly, yielding 6 cwt. of lead per fathom. In the 30 south the lode is 1 1/2 foot wide, greatly improved in appearance during the past week; we hope to meet with something good in this end shortly. In the 40, north of Bonville's shaft, the lode is 3 1/2 feet wide, yielding 4 cwt. of lead per fathom. In the 50, south of No. 3 winze, south of Bonville's, the lode is 4 feet wide, yielding 8 cwt. of lead per fm. In the 20, west of cross lode, the lode is 2 1/2 ft. wide, composed of gossan, spar, and kilas, looking very promising, ground favourable for driving. In 10, north of Bonville's shaft, the lode is 1 1/2 ft. wide, gossan and spar, impregnated with lead, but not to value. All other parts of the mine are much the same as last reported.

VIRTUOUS LADY AND WHEAL BEDFORD CONSOLS.—J. Matherell, Nov. 15: We have at last cut the lode at Field's shaft, and got into it about 5 in. in which we broke some good stones of ore. I hope we shall cut through it in the coming week.

WEST BASSET.—Wm. Roberts, Nov. 18: On engine lode, the 75, west of Perry's shaft, is now got into the same run of ore ground we have been driving through in the levels above; the lode in the present end is 5 ft. wide, with a leader of ore on the south part, producing 4 tons per fm. In the 65 west the lode is 4 ft. wide, with ore throughout, worth about 2 tons per fm. The rise in back of the 53 produces 2 tons per fm.; the lode is 4 ft. wide.

WEST CRINNIS AND REGENT UNITED.—J. Webb, Nov. 16: The 40 is cleared 35 fms. east of flat-rod shaft, and 67 fms. west, where we have set several tribute pitches; we are fixing a great extent of tramroad, but have many fms. yet to clear and secure in this level. We have several tribute pitches in the 20, on Bell's lode, and the men generally getting good wages. We are doing a pretty deal of work at Row's shaft, in clearing the old levels, and shall set tribute pitches here shortly. The shaftmen completed the dam in the north cross-cut (40 fm. level) last week, we shall now make preparations to drain the mine to deeper levels, where we shall be getting ore, which will increase the returns. The progress and prospects of these mines since their consolidation are very encouraging. Our computed 45 tons of copper ore was sold on Thursday, the 12th inst., and its real weight was nearly 50 tons per.

WEST FOWEY CONSOLS.—J. Puckey: This mine, in the copper part, about Protection shaft, in the 90 and 100 fm. levels, has not yet produced as much ore as was expected from the appearances in the 80; nevertheless, within the last day or two, the 90 end has shown very favourable indications, but the 100, which is only now commenced driving from the shaft, shows the lode at present to be small, but kindly. The western part of the mine, which is working for tin in the 100, is producing rich quality ore, even the whole size of the lode, which is 12 ft. wide.

WEST GRENVILLE.—S. Berryman, Nov. 18: We have opened on the lode east and west of the cross-cut about 2 fms.; in the eastern end the lode is 1 ft. wide, worth 1 ton of good quality ore per fm. The lode in the western end is 1 1/2 ft. wide, yielding about the same quantity.

WEST ROSEWARNE.—Wm. Richards, Nov. 14: In the course of last month we had a better foot of ground, and set the shaft at 241. per fm.; the men now demand 261., but I have set it 1 fm. at 251., to eight men; sunk last month 1 fm. 5 ft. The 30 west, on the north lode, has been driven last month, by four men, 6 fms. 1 ft.; the lode is 3 feet wide, but very little mineral, except muddle; not set at 31. 10s. per fm. The 30 east has been driven last month, on the north and south lodes, 6 fms. 5 ft.; the lode is 5 ft. wide, with stones of ore, muddle, &c., of low quality, though on the whole a kindly lode; a few fathoms further will give this junction of the two lodes a lot of set; set to four men, at 31. 10s. per fm.

WEST SHARP TOR.—Nov. 16: The ground in the cross-cut north in the 70 is chiefly hard elvan, the same kind as that passed by in the cross-cut north of the new shaft. The part of the lode being carried into in the 110 cross-cut yields some rich ore; if this part had been soft instead of hard it would have been a good paying lode. I shall put these men to drive south-west next month, to intersect the part of the lode that looks so promising in the cross-cut east of the shaft. Our prospects in this (the deepest) level are more cheering than anything I have yet seen in the mine.

WEST WHEAL TOWAN.—Nov. 17: The 45 cross-cut, north of Caroline's shaft, is still favourable for driving, but it has not yet intersected any lode. We have set a winze to sink in this cross-cut from the bottom of the slope, below the 35 fm. level, on Hampton's lode, and when holed we shall be able to work the ground at this place very conveniently. The lode in clearing the old levels, and shall set tribute pitches here shortly. The shaftmen completed the dam in the north cross-cut (40 fm. level) last week, we shall now make preparations to drain the mine to deeper levels, where we shall be getting ore, which will increase the returns. The progress and prospects of these mines since their consolidation are very encouraging. Our computed 45 tons of copper ore was sold on Thursday, the 12th inst., and its real weight was nearly 50 tons per.

WHEAL AGAR.—W. Roberts, Nov. 17: In the 60 west the lode continues 1 1/2 ft. wide, producing good stones of ore. In the 50 east the lode is 2 feet wide, composed of muddle, spar, and ore—a kindly lode.

WHEAL ARTHUR.—T. Carpenter, Nov. 16: Old Lode: The lode in the 50 west is 3 feet wide, composed of spar, muddle, iron, and stones of copper ore. The lode is driven 2 1/2 fms. west of cross-course, and getting into more settled ground. We are pressing on the 50 cross-cut south as fast as the nature of the ground will admit; driving by six men, at 51. per fathom. We have cut into the lode in the 40 east 6 ft.; but have not yet reached the north wall; the lode, so far as seen, is composed of spar, peach, muddle, and spots of copper ore. The lode in the adit level west is 2 1/2 feet wide, composed of spar, capel, muddle, and stones of copper ore. We are preparing for our next sampling, Nov. 27, which will be about 100 tons copper ore.

WHEAL BAL.—J. Mitchell, J. Bennetts: Two men and a boy driving the 50 end, west of Thomas's shaft, on Wheel Bristol lode, at 63s. per fm., worth 30s. per fm. for tin. One man, working on the 50 end, west of Bristol lode, at 25s. per fm., worth 10s. for tin. Sinking Thomas's shaft below the 50, on Wheel Bristol lode, by six men, at 131. per fm., worth 10s. for tin. Two men driving cross-cut from 50, to cut the Carbons, at 150s. per fm. Two men stopping in back of 50, on Wheel Bristol lode, at 25s. per fm., worth 35s. for tin. Twenty tribute pitches, working by 45 men, varying from 7s. 6d. to 18s. in 14 to the men.

WHEAL EDWARD.—M. H. East, Nov. 14: North Lode: The lode in the 71, east of shaft, is 4 feet wide, principally capel. The lode in the 71, east of No. 6 winze, is worth 5 tons of ore per fm., and in the same level, west of winze, 2 tons per fm. We have engaged 4 feet to drain at this point to cut the middle cross-course. The lode in the 71, west of No. 9 winze, is worth 2 tons of ore per fm., and promising further improvement. We have put a small lift of pumps in No. 7 winze, and expect to be in a position to commence driving east and west at this point by the end of next week. There is no change in the western levels since last report.—South Lode: The shaftmen are using every exertion in making the necessary preparations for sinking, and which will probably be commenced in 10 days from this time. The lode in the 61 west is yielding about 3 tons of ore per fm.; it continues in a disordered state, being split up by a horse of kilas. The tribute department continues to look much the same as for some time past, yielding a fair supply of ore.

WHEAL EMMA.—Jehu Hitchens, W. Goldworthy, Nov. 19: The engine-shaft is proceeding with good dispatch, and is now about 5 1/2 fms. below the 34; this level has lately been less productive—in fact, at times with very little ore, yet the lode is promising, and has within the last two days shown signs of improvement—to-day we have broken some good stones of ore in spar, which promises to increase. Our progress this week has been impeded by a bar of capel, which 1 ft. ore is again wearing about 4 fms. The winze below the 23, now about 3 to 4 fms. ahead of the 34, is down about 4 fms., and is better than last reported, being worth (say) 1 1/2 ton of ore per fm. of grey, yellow, and malleable copper. The whim-shaft is sinking slowly towards a junction with the 23 end, which latter is still spare for driving, with good stones of copper ore in the sparry capels—looking promising. Our tributers are working with fair diligence, and last month's ore is being carted to the quay.

WHEAL EMMA EXTENSION.—Jehu Hitchens, Wm. Goldworthy, Nov. 18: Owing to an increase of water therein, Robins's shaft has been discontinued sinking since last pay-day. Machinery of some kind being required to keep it, Brookwood wheel could be easily applied, and would answer for both. In the adit level west, on the lode west of Brook-house, we are happy to announce a great improvement; it is now over 3 ft. wide, first on the hanging wall a small fathom, then a true gossan, and as far as we have gone towards the foot-wall, floor-spar, quartz, and capel, with a good quantity of water issuing therefrom, the gossan, spar, and capel holding good quantities of yellow ore, stones of which we forward in a box herewith, which we call very kindly.

Nov. 19: The lode spoken of in yesterday's report has been opened upon, and found about 4 ft. wide, with spots of yellow and coated ore in the capels, and ore in the gossan.

WHEAL EXMOUTH.—J. Hampton, H. Skewes, N. Pault, Nov. 18: In the 60 north the lode is increased in size, and is at present 4 feet wide, producing saving work. There is a good stream of water issuing from this end, being, we consider, a good indication; the cross-cut in this level, driving west, has not yet intersected the western lode. The 40 north, on the eastern lode, is about 2 ft. wide, producing from 8 to 10 cwt. of lead ore per fm.; the south end, in same level, on quartzose lode, is worth about 12 cwt. of ore per fathom. We have four stops working in back of this level, which are worth on an average about 1 ton per fm. The rise in back of the 30 north is worth about 15 cwt. per fm.; the winze sinking below this level, on the western lode, is worth from 15 to 20 cwt. per fm.; the stops in back of this level are worth from 12 to 15 cwt. per fm. The lode in the 20 south is about 2 ft. wide, and is opening ground that will work on tribute for jack at a little profit. The rise in back of the adit, against Barratt's pitch, is at present unproductive. Saturday last being our general setting, we set 10 tribute pitches, varying from 21. 5s. to 41. 4s. per ton. In conclusion, we beg to add that the prospects of the mine generally are commending.

WHEAL GRENVILLE.—G. R. Odgers, Nov. 14: In taking down the lode this morning at the engine-shaft, I find it varies from 14 to 18 in. wide, and there is a good

branch of ore from 8 to 10 in. wide gone away in the eastern end of the shaft. The lode is composed of gossan, ore, and quartz; I do not think it is quite as well for ore as when we took it down last, but the ore is dipping easterly, and we find an ore lode coming in again from the western end of the shaft, and as I before advised you, we must expect the lode to be subjected to brasses while in the gossan. We have had some good work to-day, and the lode is presenting a very kindly appearance indeed. The lode in the eastern end in the 54 is nearly all the biggest of the end, of quartz, peach, and a little gossan, showing at times promising features. The lode in the western end, same level, is about 10 in. wide, of quartz, gossan, and stones of ore.

WHEAL GUSKUS.—J. Richards, Nov. 16: The new shaft is progressing satisfactorily, and the ground is favourable for sinking; we are now down 80 fms., and have commenced to drive a cross-cut to cut the lode at this point. The new lode in the 30 end, east of Rapson's shaft, is 1 1/2 ft. wide, with a little lead, but not enough to value; the rise in the back of the said level on the said lode is suspended at present for the want of air. In the cross-cut driving north from Francis's shaft, in the 80, 1 calculate we are within 3 ft. of the lode by its bearing in the level above. All other places are without alteration.

WHEAL HARRIETT.—S. Williams, Nov. 14: No alteration since Saturday last.

WHEAL KITTY (St. Agnes).—M. Edwards, Nov. 14: The sumpmen have put in the pent-house at the 52, and the engine-shaft is down 9 feet under that level. The lode in the 52, driving west, is large and promising, being at present 4 ft. wide, and worth 341. per fm.; in the same level east the lode has slightly improved, and is now worth 131. per fm. In the 72, driving west, the lode is 4 1/2 feet wide, worth 201. per fm.; in the same level east it is 3 feet wide, worth 151. per fm. We are still driving the cross-cut south in the 54, east of Sunny Corner shaft, thinking the lode may be still before us in that direction, and the ground at present appears favourable for such an expectation. In the middle level, driving east of Sunny Corner shaft, the lode has improved since last reported on, it is now 2 1/2 feet wide, and worth 131. per fm.—Holgate's Shaft: The lode in the 72, driving east, is 2 ft. wide, worth 101. per fm. In the 65 west it is 3 ft. wide, worth 181. per fm. In the 54, driving west, it is 3 feet wide, worth 121. per fm. The stops and pitches continue to yield about the usual amount. We sold 14 tons 17 cwt. 2 qrs. 18 lbs. of black tin on Tuesday last, and have about 20 tons of copper ore to sample in the course of next week.—N.B. The decline in the price of tin has been taken into consideration in the value per fathom of the lodes.

WHEAL MARY EMMA.—W. Doble, Nov. 18: The round and other buddies, with the floors, I hope to have completed about Saturday, when I expect we shall commence dressing the early part of next week, although it is a short time to get a sampling of tin ready by Christmas. The machinery and floors all being newly laid out, we must reasonably expect some alterations as well, probably, as during this season of the year as to weather; yet I think I shall get ready at least 2 tons of rich quality tin as any raised. Our drawing-machine and railroad I hope to have completed in a fortnight from this time—before, if possible; when finished our plant, with the mine, will bear an inspection. The lode in the western slope is now worth 251. per fm. The lode in the eastern slope about 151. per fm. I have been obliged to take the men from this slope, to assist in getting on with the surface work while the weather is fine. We are at present clearing the work already broken to get to the end, the level being full of work, a great many fathoms in length, which must be got out before we can drive the end. There is tin in the present end, but it is quite clear the former party had led the lode to the north of their drive; it was my opinion from the first time I went underground there, as well as that of many practical men who inspected the mine, and by our stops it proves to be so. As soon as the work is clear it is our intention to open it, as well as to sink in the bottom of the level under our work, where, I am informed by miners who worked there and made this sink, there is a fine lode of tin. The deepest point below adit is only 10 ft. in; we shot some holes in the lode, from which we broke some fine rocks of tin. This sink was referred to in Chap. I. ground. In examining the burrows of the old men's workings, the eastern side of the river in the granite, we find fine rocks of tin; there is no doubt on my mind that there is a good lode there, as there is so much tin thrown away. This lode was worked on, and a quantity of tin returned from it, about 70 to 80 years ago. I believe the whole of the burrows, both sides of the river, will pay a good profit for stamping and returning. The average of the lode stopped by us has proved to be profitable, and by all appearances as the adit end is extended, and a shaft sunk, large quantities of profitable ground will be laid open. This opinion has been borne out by some of the most practical and respectable agents of the district.

WHEAL NORRIS.—J. Nance, Nov. 14: We have just discovered, in clearing the adit, a lode 5 feet wide, 1 foot of this width consisting of red priant and tin, worth 7s. per sack; the remaining part of the lode is splendid gossan.

WHEAL TALLACK.—J. Smith, Nov. 15: Being our setting-day, we set the following bargains:—The engine-shaft to sink below the 10, by nine men, at 121. per fm. The 10 to drive east of engine-shaft, by three men and three boys, at 31. 5s. per fm. The adit end to drive west of the new shaft, on the south lode, by two men and two boys, at 21. 10s. per fm. The adit end to drive east of the new shaft, on the south lode, by two men and two boys, at 31. per fm.—Tribute Setting: A new pitch in the back of the 10, at 7s. 6d. in 11; and one at 3s. in 11. We are obliged to suspend the winze sinking below the 10 in consequence of the water, but I think we shall soon drain it down again by our sinking the shaft.

J. Smith, November 19: The 10 fathom level east, I am glad to say, is still looking very promising; the lode is 15 in. wide, and more copper in it than I have ever seen here before. If we do not have a good bunch of copper under this shaft and copper I shall be very much disappointed. I am very anxious to see the 25 under this piece of ground. Tallack will do by-and-bye.

WHEAL TEHDY.—Wm. Roberts, D. Lankbury, Nov. 16: The points of operation are as follows:—Sinking the engine-shaft under the 60; driving the 60 east, on canter lode; driving the 60 west, on ditto; driving the 50 east, on fin lode; driving the 60 west, on ditto; driving the 40 east, on north lode; sinking winze under the 50 west, on ditto; and driving the 60 north, in the cross-cut. The engine-shaft is 1 fm. 3 ft. 5 in. below the 60—sinking by nine men, at 304. per fm.—Canter Lode: The 60 is driven 10 fms. east and 3 fms. west of the cross cut from engine-shaft—the former is driving by six men, at 71., and the latter by four men, at 61. per fm.; the lode in the eastern end is 1 ft. wide, unproductive; in the western end the lode is 1 foot wide, producing 1 ton of ore per fm.—Tin Lode: Since this lode has been intersected by the canter in the 50, about 7 fms. have been driven east and 4 fms. west; the lode in the eastern end is about 3 feet wide, producing good stones of tin—driving by four men, at 101. per fm.; in the western end the lode is 4 1/2 ft. wide, very promising, and turning out rich stones of tin—driving by six men, at 131. per fm.—North Lode: In the 40, 44 fms. east of the western shaft, the lode is similar, driving by four men, at 41. 10s. per fm. In the 40, 44 fms. west of the 40, the lode is 1 foot wide, producing 1 ton of ore per fm.—sinking by six men, at 71. per fm. We hope to communicate this winze with the 60 in the course of another month, and then commence driving the 50 west, in which the lode is 1 1/2 foot wide, worth 1 ton of ore per fathom. In sinking the diagonal shaft water always flows from the north lode, which leads us to believe that another lode may not be far distant; therefore, as the sumpmen must be employed to look after the pitwork, &c., we have set them a cross-cut to drive north in the 60—by four men, at 51. 10s. per fm.; this cross-cut is about 15 fms. west of shaft. We believe about 70 tons of ore will be sampled on the 25th inst., as stated in our report of Oct. 31.

WHEAL TREBAYAH.—B. Bundry, F. Hoeking, Nov. 17: The engine-shaft, sinking below the 60 fm. level, is in favourable position, and is producing good work. In the 60 fm. level, east of engine-shaft, the lode is 10 in. wide, composed of kindly spar, spotted with ore; the 60 fm. level, driving west of engine-shaft, is producing ore, but the branches are not yet united; in the 60, east of flat-rod shaft, the lode is much improved, and worth about 2 tons of copper ore per fm. No. 1 winze, sinking below the

standing to the south. In the 50 east the lode appears to be opening out larger. In the 50 west the north lode is rather small, producing occasional stones of copper ore. In the 50 west we have a large fine vein of copper ore, composed of spar, pyrite, and malachite, with spots of copper ore. In the 50 east, we find the lode rather small, composed of spar, pyrite, and malachite, with spots of copper ore. In the 50 east, we find the lode rather small, composed of spar, pyrite, and malachite, with spots of copper ore. In the 50 east, we find the lode rather small, composed of spar, pyrite, and malachite, with spots of copper ore.

WILLOW BANK.—J. Sanders, Nov. 16: The lode in the 30, both east and west, is much the same as last reported. The cross-cut north from the 17 is not through the lode as yet. The water has increased in the 17 within the past week, so much that we are obliged to work the engine a great deal faster than formerly to keep it in fork. The lift is fixed at boundary shaft, below the adit, and the sinking of the shaft is progressing favourably. I regret to say that we had an accident last week, through the blasting of a hole, by which one man was very much injured, but I am happy to say that he is now in a fair way of recovery.

YARNER MINE (North Bovey, Devon).—This mine has considerably improved in the past week. The lode driving east in the 10 is increased in size, and is now worth 100, per ton, for copper, with every prospect of a further improvement. The shaft is 3 fms. under the 10, and the lode improving in depth.

The extraordinary fall in the price of metals will necessitate the stoppage of some of the best mines, or occasion other measures to be adopted for counteracting the proceedings of the smelters. A meeting of the adventurers in Wheal Wren has been called, to consider the propriety of withholding the tin from the market, and making a call to carry on operations. At Ballewidden Mine, a meeting was held on Nov. 11, when it was resolved that, "in consequence of the heavy loss of 1014d. 6s. for the quarter, and the great reduction in the price of tin," the meeting be adjourned until Saturday (this day), for the purpose of taking into consideration the partial suspension or total abandonment of the mine. The agents were directed in the meantime to carefully examine the mine, and make an estimate of the probable cost of working for the next six months, either on the present scale, or such reduced one as may be suggested. Since the meeting alluded to, the manager has issued a notice to all parties engaged on the mine that, in consequence of the reduction in the price of their produce (tin), at least 300, per ton since March last, all wages in future, from the purser downwards, will be reduced at least 20 per cent., intimating that any of the parties employed may throw up their engagement by giving a week's notice. It is scarcely necessary to add that the proceedings of this day are looked to with considerable interest.

MINING INSPECTION.—Great complaints are occasionally made of the inaccuracy of the reports of mining agents. In some cases these are stated to arise from errors of judgment, in others from want of professional knowledge, and in instances, which we trust are but few, from wilful misrepresentations and garbled statements of facts. We have always impressed upon adventurers the necessity of not only having a knowledge of the committee who manage the undertaking in which they embark their capital, but at the same time to look to the character of the agents who are appointed to superintend the practical details, and the reports of those who have ushered the property into public notice. It will be seen that Mr. Josiah Hedges Hitchens, who developed, and many years ago successfully superintended, the Devon Great Consols, which has been one of the wonders of mining in the present century, offers to inspect mines in the United Kingdom; at the same time, he professes his advice in all things pertaining to mining. From the practical experience acquired by Capt. Hitchens, not only in carrying out the Devon Great Consols, but likewise the lengthened period he has been acquainted with successful mineral enterprise, a guarantee is offered that sound and useful information will be afforded to those who require it. It is not to be supposed that all mining reports should be of a favourable nature; the most practical men, with all the aid of science, may be deceived, and their judgment may lead to disappointment. It is an old saying that no miner can see further than the pick and gad. What, however, is wanted is that the public should be put in possession of facts, and that sound practical information should be afforded as to the value of any property they may wish to invest their capital in, and that their agent should be a man of sound intention and integrity of purpose. Judging from his antecedents, Capt. Josiah Hitchens would appear to possess these acquirements.

MINING SURVEYING.—One of the many evils which hitherto, in a great measure, has tended to retard the development of mining enterprise, and at the same time involved a large, and in many instances a wasteful, expenditure of capital, has been the absence of proper mining records and sections of the workings. The attention of the Government has been directed to the subject, and during the last few years Mr. Robert Hunt has collected and collated a useful mass of mining information, which, but for his exertions, would have probably been lost or destroyed. In his lecture at the Government School of Mines, on Tuesday, Mr. Warrington Smyth alluded to the loss of capital that had been incurred by taken up old mines merely on loose and oral traditions; and, referring to the map of Tywarthale, observed how useful a guide this would be to the agents, had the sections been in a more perfect state, and the prices and other information marked at the different levels. Several of our larger mines have a dialler attached to the staff. In some of the continental states it is compulsory on proprietors of private mines to keep up an accurate survey of their workings, and all the old workings of the State are further driven and worked, the agents are obliged to be marked on the plans. If such a system were adopted here, a great check would be given to reckless speculation; as the production and inspection of authentic records and maps would prevent the diffusion of many delusive statements, which, owing to the absence of any means of disproving, now occasionally find currency, and thus inflict a great injury on mining adventure. Capt. JOSEPH RICHARDS, of the Okehampton Consols, who has had considerable experience in this branch of mining, it will be seen by referring to our advertising columns, offers his services to regularly attend to mapping and dialling of mines. In order, however, that this should be perfectly done, it is necessary that the plans and sections should not only be laid down at a peculiar phase of the working, but likewise kept up contemporaneously with their extension. If Capt. Richards does this, it may not only be advantageous to himself, but likewise a great benefit to the mine in question, and of commensurate utility to the adventurous public.

THE IRON TRADE.—The effect of the commercial crisis in America has already been seriously felt by many British houses of the highest respectability, and in the iron trade especially the result will probably be most disastrous. In the South Staffordshire district the signs of mistrust and anxiety which were noticed previously, had so far increased on Saturday that a run on the Wolverhampton Bank commenced, and during Saturday and Monday about 50,000l. were withdrawn, when the directors decided upon suspending payment; with the promise, however, that they would forthwith take the most prompt means to satisfy every account, and retrieve every inconvenience that may arise from this unavoidable occurrence, if circumstances should not justify the continuance of the bank. A number of furnaces have been blown out, and several firms (including Messrs. W. Riley and Son, C. F. Perry and Co., and others) have suspended. The Staffordshire firms are so intimately connected with one another, that it is feared many other failures may follow; and as the number of men out of employ in the district is very large, the most unfavourable anticipations are entertained with regard to the difficulties which will undoubtedly be met with in dealing with the wages question. Notwithstanding this gloomy state of affairs, however, it is to a great extent believed that the panic will be of short duration, and that its ultimate effect upon the interests involved will be less disastrous than has been anticipated. The opinion expressed in a rival district that "Staffordshire has probably received a stroke which will affect it for years to come," is, therefore, we think, quite unjustifiable.

RAILWAY TRAFFIC.—The Traffic Returns of the Railways in the United Kingdom for the week ending Nov. 14, amounted to 428,757, and for the corresponding week of 1856 to 427,700, showing an increase of 1057. The gross receipts of the eight railways having their termini in the metropolis amounted for the week ending as above to 171,863l.; and for the corresponding week of last year to 180,591l., showing a decrease of 8728l.

The decrease on the Eastern Counties amounted to 6285l.; on the Great Northern to 2728l.; on the London and North-Western to 2945l.; on the London and Blackwall to 781l.; on the London and South-Western to 1315l.; and on the South-Eastern to 1831l.; total, 9525l. But from this must be deducted 385l. the increase on the Great Western, and 4124l. on the London, Brighton, and South Coast: leaving the decrease as above, 8728l.

The receipts on the other lines in the United Kingdom amounted to 256,894l., and for the corresponding period of 1856 to 247,109l., showing an increase of 9785l. The receipts of those lines, from which must be deducted the decrease on the metropolitan lines, leaving the total increase 1057l. compared with the corresponding week of 1856.

RAILWAY CAPITAL.—The total amount of capital authorised by Act of Parliament for the various railways of the kingdom amounted, previous to the end of 1855, to 281,195,702l. (by shares), and to 95,455,525l. (by loans). In 1856 the amount authorised was 3,613,090l. by shares, and 2,145,745l. by loans. The amount of capital and loans authorised, previous to Dec. 31, 1856, was 377,767,907l. The amount of the share capital of companies actually paid-up on Dec. 31, 1856 (the same not receiving, or entitled to receive, any preferential dividend or rate of interest), was 175,445,169l.; the amount of dividend on ordinary share capital was 5,997,551l.; the amount of share capital receiving, or entitled to receive, preferential dividend or interest, 3,424,323l.; the total debt of the companies (on Dec. 31, 1856), was 307,594,065l.; and the amount of interest thereon, 3,244,240l. The total amount of money which at the end of 1856 the various companies had raised by shares or loans was 307,594,065l.; the total amount which at the end of 1856 the companies retained the power to raise, either by old or new shares, or by loans, was 70,173,821l. The total length of line open for traffic at the end of last year was 8710 miles (2444 of single and 6266 miles of double line); the length of line in course of construction on Dec. 31 was 1050 miles; the length of line authorised, but not commenced, 3321 miles; and the total length of lines for which companies had obtained powers prior to Dec. 31, 1856, 13,111 miles.

EDEN VALLEY RAILWAY.—This line will commence at Clifton, near Penrith, on the Lancaster and Carlisle line, and extend to the South Durham and Lancashire Union Railway (now in course of construction), at Kirby Stephen. By this railway the produce of the Durham coal field can be readily conveyed to extensive districts of England and Ireland, which have hitherto been supplied with an inferior quality of coal, at a comparatively high price. The gradients upon the line are favourable, the works of an easy character, and the traffic from coal, coke, lime, and minerals, together with passengers and merchandise, will, it is confidently believed by the promoters, be fully remunerative to the shareholders. The average weekly receipts upon the Newcastle and Carlisle Railway are 400, per mile per week; Maryport and Carlisle, 380; Lancaster and Carlisle, 700; Stockton and Darlington, 740; Monkland, 240; Kendal and Windermere, 240; Furness Railway, 540; Caledonian Railway, 640. A similar mileage receipt of even 150, per week would pay a dividend of 6 per cent. per annum upon the present line, after allowing 50 per cent. for working expenses. To save outlay on rolling stock, engines, &c., the promoters intend by the Act to empower adjoining companies to work and maintain the line, and a provisional working arrangement on equitable terms has already been made with the Stockton and Darlington Company. The list of directors consists of 37 of the most influential parties connected with the district, and includes the names of Lord Brougham, Sir Richard Tuford, Earl Bessborough, &c. The line will be 22 miles in length, and the capital proposed to be raised is 1,500,000l., to be divided into 5000 shares of 300l. each. The general prospects of the undertaking are highly encouraging.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET, London, November 20, 1857.

COPPER.			FOREIGN STEEL.		
	£. s. d.			Per Ton.	
Copper wire	p. lb. 0 1 3/4		Swedish, in kegs	21 15 0-22 0 0	
ditto tubes	0 1 4-1 4 1/2		to arrive	21 10 0	
Sheeting and bolts	0 1 1 1/2		ditto, in faggots	23 10 0-24 0 0	
Bottoms	0 1 2-1 2 1/2		English, Spring	18 0 0-23 0 0	
Old (Exchange)	0 1 0		QUICKSILVER	p. lb. 0 2 0	
Best selected	124 10 0-nom.				
Tough cake	121 10 0		Foreign	37 10 0	
File	121 10 0		To arrive	28 10 0	
South American	120				
IRON.			SPELTHER.		
	per Ton.			Per Ton.	
Bars, Welsh, in London	8 5 0-8 7 6		In sheets	36 0 0-36 10 0	
ditto, to arrive	7 0 0-7 5 0				
Nail rods	8 0 0-8 10 0				
Stafford, in London	9 0 0-9 10 0				
ditto	10 0 0-10 10 0				
Hoops ditto	10 7 6-10 10 0				
Sheets, single	11 0 0-11 10 0				
Pig, No. 1, in Wales	4 0 0-4 5 0				
Refined metal, ditto	5 5 0-5 10 0				
Bars, common, ditto	6 5 0-6 15 0				
Ditto, rail way, ditto	6 5 0-6 10 0				
IC Ditto, 1st quality	14 10 0-16 10 0				
in stock to arrive	15 0 0-16 0 0				
Pig, No. 1, in Clyde	2 13 0-2 15 0				
ditto, in Tyne and Tees	3 11 0-3 13 0				
Ditto, forgo	3 10 0				
Staffordshire Forge Pig	4 15 0-5 0 0				
Welsh Forge Pig	3 0 0-3 5 0				
LEAD.			TIN.		
	per Ton.			Per Ton.	
English Pig	23 0 0-23 10 0		English, blocks	120 0 0	
ditto sheet	24 0 0-24 10 0		ditto, in barrels	131 0 0	
Ditto lead	26 0 0		ditto, refined	123 0 0	
Ditto white	27 0 0-28 0 0		Banca	108 0 0-110 0 0	
Ditto patent shot	26 10 0-27 0 0		Straits	102 10 0-106 0 0	
Spanish, in bond	23 0 0				
American	none.				
Basas (sheets)	p. lb. 11 1/2-12 1/2				
Wire	11 1/2-12 1/2				
Tubes	13 1/2-14 1/2				

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—Scarcely any alteration has taken place in the tone and appearance of our market; all kinds of metals assume a dull and cheerless aspect; no criterion can be formed in the present uncertainty that exists as to the future value of any one article.

COPPER.—No change has been announced in fixed rates; at the same time, no improvement is visible in the demand, merchants still retaining what few orders they have on their books, and evincing a strong disinclination to ship at present rates.

IRON.—This metal still wears a downward course; the shipments having considerably fallen off to all parts of the world, and so very extensive has the production become, although lately somewhat diminished, that either prices will recede very fast or there will be a vast accumulation of stock, which will naturally swallow up a large amount of capital, and, perhaps, be the means of causing some of the ironmasters to suspend operations altogether. Already there have been several failures announced in the Staffordshire district, consequent on the stoppage of the Wolverhampton Bank; and, according to information from there, other failures are inevitable. We trust, however, that the present desponding state of affairs will pass by more quickly than the difficulties with which we are surrounded would allow us to expect. Scotch pigs have slightly fluctuated in price, the market closing at 52s. 6d., m. n., g. m. b., f. o. b. in Glasgow.

LEAD much about previous quotations; scarcely any business doing.

SPELTHER.—Little or no enquiry: market declined to 27l. 10s.; it is reported 27l. would not be refused for a good order.

TIN.—English is without change. Straits has been sold at public sale at a considerable reduction—102l. 10s. This is most alarming, and the trade was utterly surprised to find it could not realise a better price.

TIN PLATES lower in price.

LIVERPOOL, NOV. 19.—Our metal market shows no symptoms of improvement whatever, but, on the contrary, increased depression exists in all branches of the trade. The disastrous occurrences in Staffordshire during the past week will convey some idea of the state of things there. Business for the present, at all events, is comparatively dead, and will continue to be so, it is feared, for some time to come. As regards Welsh Iron, some makers are unwilling to concede prices, whilst others are following the market. Scotch Pig-iron shows an improvement in price since our last report, attributable, in some measure, to the relief granted to the Bank of England by the Government, and which induced buyers to come forward more freely. The shipments are again considerable, amounting to 11,025 tons, against 10,024 tons for the corresponding week of last year. The demand for Tin and Tin-plates is very easy; the latter article continues to recede in price, and quotations are, therefore, merely nominal. Copper and Lead are but in moderate request. The following are the quotations:—Iron: Merchant bar, 7l. to 7l. 10s. per ton.—Tin: Common block, 120l. per ton; common bar, 121l.; refined block, 124l.—Tin-plates: Charcoal, 1C, 34s. to 36s. 6d. per box; coke, 1C, 27s. to 28s. 6d.—Lead: English sheet, 24l. 10s. per ton; English pig, 23l. 10s.—Copper: Cake and tile, 12l. 10s. per ton; best selected, 124l. 10s.; sheeting and bolt, 1s. 1 1/2d. per lb.—Yellow metal sheeting, 11 1/2d. per lb.—Steel: Blistered, 30l. to 40l. per ton; spring, 18l. to 24l.; cast and shear, 50l. to 60l.

NEW YORK, NOV. 4.—The market for all kinds of iron continues languid; prices for most descriptions are merely nominal, and the few sales making to the trade are no guide to the market. Scotch pig is selling slowly, at 92s to 92s, six months, from yard. Common and refined English bars are very dull, and in the absence of sales previous rates are altogether nominal. English sheets are quiet, but steady.

MINES.—The effect of the Government suspension of the Bank Act, thus authorising the issue of an unlimited number of notes, just on the eve of our last, did good for a time, inasmuch as it inspired confidence, and made people breathe more freely; but the rottenness of commercial affairs, caused by enormous overtrading, or fictitious capitals, was too deep seated to be materially relieved by the measure, and we have had this week a fresh succession of disasters, and all sorts of rumours, which in themselves do harm and sometimes create the very mischief the authors of them would seem to deplore, have been freely circulated.

But amongst it all the funds keep up, and the mining share market has certainly been more active than for some weeks past. The demand has been chiefly for small speculative shares, the rise or fall of 1s. per share in which gives occupation and profit to the dealers. Good progressive mines are also enquired after, in preference to dividend stocks, which are likely to be affected by the almost unprecedented drop in the standard last week. This sudden decline in ore, without any corresponding decline in the metal, has given rise to much comment, and the suggestion we threw out a few weeks ago, that mines should withhold their produce for a time, or, at least, reduce their samplings, was about, we understand, to be extensively adopted, had not the standard risen again this week.

Notwithstanding the amount of business doing, the market is in rather a peculiar position, and very slight circumstances affect prices. The dealers do not like to increase their stock in the present state of money matters, and the appearance of sellers is the signal for lower quotations and wide margins, so that those who must sell have to do so at a sacrifice; whilst, on the other hand, a demand for shares causes a temporary rise, and a difference between buying and selling prices of as much as 1l. on 10l. shares.

We have scarcely heard of a transaction in any of the large dividend mines, and lower quotations are generally given. Alfred Consols have fluctuated very much; the price declined from 17 to 13, sellers, but on Friday suddenly became in demand again, and left off at 14; the lode in the 130, as we stated last week, did not continue so rich as it had been, but cutting it in the 140, which is daily expected, may improve prospects again. Wheal Edward shares have very much improved, and are more in demand, at 74 to 75; there is an impression abroad that these shares will be better ere long. East Basset shares have been much more in demand, and the price advanced to 90, 95; Grambler and St. Aubyn has been reported as looking better in the 36, and shares enquired after at 80 to 85; Wheal Arthur, 3 1/2 to 4. In West Grenville, large transactions have taken place; the lode has improved to 20l. per fm., but is not looking so well; shares, after advancing to 9s., leave off at 5s. to 6s. Great South Tolgus has improved, and shares advanced to 14 1/2; Lady North Croft, 5, sellers. West Basset also improved; shares, 24 to 26; Lady Bertha, after declining to 17s. 6d., rallied, and left off at 20s. to 21s., buyers; Kelly Bray, 1 1/2 to 1 3/4; Pendean, 2 1/2 to 3; East Russell, 12 to 14; Drake Walls, 1 1/2; Sord-

ridge shares are quoted higher, 2 1/2 to 3; Wheal Mary Ann advanced to 50, buyers; Trelawny, 23 1/2 to 24; Ludcott, 26s. to 28s.; Craddock Moor, 39 to 40; Trevelyan, 5. Wheal Kitty (Lelant) dropped to 15, owing to a report, now known to be without any foundation, that the levels had been driven into Wheal Margaret, and a large quantity of tin, which would have to be refunded, taken away; when the falsity of the report became known, shares were firmer, and advanced in price. Wheal Margaret shares have been very flat, at 48 to 52; Providence Mines, 70 to 75; Clijah and Wentworth enquired for, at 4; East Tolgus at 40; East Rosewarne, 19s.; Redmoor, 3 1/2 to 4; North Trelawny, 3 1/2 to 4; East Tamar, 3 1/2 to 4; Calstock Consols, 5 1/2 to 6 1/2. Wheal Margery shares are very flat, at 8, a fall in price which seems astonishing, even in these times, after the flourishing reports issued by the officials, and the absence of information to the shareholders that any great falling off had taken place in the mine. West Fowey, 6 to 7; Wheal Wrey, 5 1/2 to 5 3/4, and in demand; East Alfred, 2 1/2 to 3; West Par, 7s. 9d. Cobre Copper, 38 to 40; Santiago, 1 1/2 to 2, and flat; these mines must be seriously affected by the fall in copper. Wheal Grenville, after being dealt in at 1 1/2, left off flatter, at 1 1/4 to 1 1/2; Wheal Uny shares were also good, at 8 to 8 1/2, but dropped on Friday to 7 1/2, 8, as the new discovery on the copper lode was not looking so well; Great Alfred shares have been much more in demand, at 5; East Buller, 2 to 3; Sidney shares rather flat again, at 5 to 5 1/2; Devon Buller dealt in, at 3 to 3 1/2.

Mining Exchange Official List of transactions during the week:—

SATURDAY, NOV. 14.—Alfred Consols, 16, 16 1/2, 16 3/4; East Alfred, 2 1/2; Lady Bertha, 18s. 6d., 19s., 19s. 6d.; Pendean, 2 1/2 to 2 3/4; Sordridge Consols, 2 1/2 to 2 3/4; Virtuous Lady and Bedford, 3 1/2 to 4; West Grenville, 3s. 6d., 3s. 6d., 3s. 6d.; Wheal Edward, 7 to 7 1/4; Wheal Mary Ann, 40 to 50; Trelawny, 23 1/2 to 24; Drake Walls, 17s. 6d., 18s., 18s. 6d.; East Basset, 91 to 92 1/2; Lady Bertha, 18s., 18s. 6d., 19s., 19s. 6d.; Sordridge Consols, 2 1/2 to 2 3/4; West Grenville, 7s. 6d., 7s. 6d., 7s. 6d.; Wheal Edward, 7 1/2 to 7 3/4, 6 3/4, 6 1/2. **SUNDAY, NOV. 15.**—Alfred Consols, 15 1/2; East Rosewarne, 17s., 18s., 19s., 20s., 23s., 3 1/2; East Russell, 2 to 2 1/2; Great Alfred, 5; Lady Bertha, 18s.; Pendean, 2 1/2 to 2 3/4; Providence Mines, 73 1/2, 74 1/2, 75, 76; Sordridge Consols, 2 1/2 to 2 3/4; West Grenville, 8s. to 8s. 6d.; Wheal Edward, 6l. 13s. 9d. to 6l. 16s. 3d.; Wh. Mary Ann, 50. **MONDAY, NOV. 16.**—Alfred Consols, 15 1/2; East Rosewarne, 17s., 18s., 19s., 20s., 23s., 3 1/2; East Russell, 2 to 2 1/2; Great Alfred, 5; Lady Bertha, 18s.; Pendean, 2 1/2 to 2 3/4; Providence Mines, 73 1/2, 74 1/2, 75, 76; Sordridge Consols, 2 1/2 to 2 3/4; West Grenville, 8s. to 8s. 6d.; Wheal Edward, 6l. 13s. 9d. to 6l. 16s. 3d.; Wh. Mary Ann, 50. **TUESDAY, NOV. 17.**—Alfred Consols, 15 1/2; East Rosewarne, 17s., 18s., 19s., 20s., 23s., 3 1/2; East Russell, 2 to 2 1/2; Great Alfred, 5; Lady Bertha, 18s.; Pendean, 2 1/2 to 2 3/4; Providence Mines, 73 1/2, 74 1/2, 75, 76; Sordridge Consols, 2 1/2 to 2 3/4; West Grenville, 8s. to 8s. 6d.; Wheal Edward, 6l. 13s. 9d. to 6l. 16s. 3d.; Wh. Mary Ann, 50. **WEDNESDAY, NOV. 18.**—Alfred Consols, 15 1/2; East Rosewarne, 17s., 18s., 19s., 20s., 23s., 3 1/2; East Russell, 2 to 2 1/2; Great Alfred, 5; Lady Bertha, 18s.; Pendean, 2 1/2 to 2 3/4; Providence Mines, 73 1/2, 74 1/2, 75, 76; Sordridge Consols, 2 1/2 to 2 3/4; West Grenville, 8s. to 8s. 6d.; Wheal Edward, 6l. 13s. 9d. to 6l. 16s. 3d.; Wh. Mary Ann, 50. **THURSDAY, NOV. 19.**—Alfred Consols, 15 1/2; East Rosewarne, 17s., 18s., 19s., 20s., 23s., 3 1/2; East Russell, 2 to 2 1/2; Great Alfred, 5; Lady Bertha, 18s.; Pendean, 2 1/2 to 2 3/4; Providence Mines, 73 1/2, 74 1/2, 75, 76; Sordridge Consols, 2 1/2 to 2 3/4; West Grenville, 8s. to 8s. 6d.; Wheal Edward, 6l. 13s. 9d. to 6l. 16s. 3d.; Wh. Mary Ann, 50. **FRIDAY, NOV. 20.**—Alfred Consols, 15 1/2; East Rosewarne, 17s., 18s., 19s., 20s., 23s., 3 1/2; East Russell, 2 to 2 1/2; Great Alfred, 5; Lady Bertha, 18s.; Pendean, 2 1/2 to 2 3/4; Providence Mines, 73 1/2, 74 1/2, 75, 76; Sordridge Consols, 2 1/2 to 2 3/4; West Grenville, 8s. to 8s. 6d.; Wheal Edward, 6l. 13s. 9d. to 6l. 16s. 3d.; Wh. Mary Ann, 50.

On the Stock Exchange, the following business has been transacted:—

SATURDAY, NOV. 14.—Transactions, though not officially marked: Wheal Mary Ann, 40 to 50; South Croft, 33s to 34s; Sordridge Consols, 2 to 2 1/2; Lady Bertha, 18s., 19s., 20s., 23s., 3 1/2; East Russell, 2 to 2 1/2; Great Alfred, 5; Lady Bertha, 18s.; Pendean, 2 1/2 to 2 3/4; Providence Mines, 73 1/2, 74 1/2, 75, 76; Sordridge Consols, 2 1/2 to 2 3/4; West Grenville, 8s. to 8s. 6d.; Wheal Edward, 6l. 13s. 9d. to 6l. 16s. 3d.; Wh. Mary Ann, 50. **SUNDAY, NOV. 15.**—Transactions, though not officially marked: Wheal Mary Ann, 40 to 50; South Croft, 33s to 34s; Sordridge Consols, 2 to 2 1/2; Lady Bertha, 18s., 19s., 20s., 23s., 3 1/2; East Russell, 2 to 2 1/2; Great Alfred, 5; Lady Bertha, 18s.; Pendean, 2 1/2 to 2 3/4; Providence Mines, 73 1/2, 74 1/2, 75, 76; Sordridge Consols, 2 1/2 to 2 3/4; West Grenville, 8s. to 8s. 6d.; Wheal Edward, 6l. 13s. 9d. to 6l. 16s. 3d.; Wh. Mary Ann, 50. **MONDAY, NOV. 16.**—Transactions, though not officially marked: Wheal Mary Ann, 40 to 50; South Croft, 33s to 34s; Sordridge Consols, 2 to 2 1/2; Lady Bertha, 18s., 19s., 20s., 23s., 3 1/2; East Russell, 2 to 2 1/2; Great Alfred, 5; Lady Bertha, 18s.; Pendean, 2 1/2 to 2 3/4; Providence Mines, 73 1/2, 74 1/2, 75, 76; Sordridge Consols, 2 1/2 to 2 3/4; West Grenville, 8s. to 8s. 6d.; Wheal Edward, 6l. 13s. 9d. to 6l. 16s. 3d.; Wh. Mary Ann, 50. **TUESDAY, NOV. 17.**—Transactions, though not officially marked: Wheal Mary Ann, 40 to 50; South Croft, 33s to 34s; Sordridge Consols, 2 to 2 1/2; Lady Bertha, 18s., 19s., 20s., 23s., 3 1/2; East Russell, 2 to 2 1/2; Great Alfred, 5; Lady Bertha, 18s.; Pendean, 2 1/2 to 2 3/4; Providence Mines, 73 1/2, 74 1/2, 75, 76; Sordridge Consols, 2 1/2 to 2 3/4; West Grenville, 8s. to 8s. 6d.; Wheal Edward, 6l. 13s. 9d. to 6l. 16s. 3d.; Wh. Mary Ann, 50. **WEDNESDAY, NOV. 18.**—Transactions, though not officially marked: Wheal Mary Ann, 40 to 50; South Croft, 33s to 34s; Sordridge Consols, 2 to 2 1/2; Lady Bertha, 18s., 19s., 20s., 23s., 3 1/2; East Russell, 2 to 2 1/2; Great Alfred, 5; Lady Bertha, 18s.; Pendean, 2 1/2 to 2 3/4; Providence Mines, 73 1/2, 74 1/2, 75, 76; Sordridge Consols, 2 1/2 to 2 3/4; West Grenville, 8s. to 8s. 6d.; Wheal Edward, 6l. 13s. 9d. to 6l. 16s. 3d.; Wh. Mary Ann, 50. **THURSDAY, NOV. 19.**—Transactions, though not officially marked: Wheal Mary Ann, 40 to 50; South Croft, 33s to 34s; Sordridge Consols, 2 to 2 1/2; Lady Bertha, 18s., 19s., 20s., 23s., 3 1/2; East Russell, 2 to 2 1/2; Great Alfred, 5; Lady Bertha, 18s.;

At Carvath United Mining Company meeting, yesterday (Dr. Alexander Beattie in the chair), the accounts showed a balance against adventurers, 11931. 18s. 6d. A call of 7s. 6d. per share was made. The proceedings, which are reported in another column, terminated with a vote of thanks to the Chairman.

At Kelly Bray Mining Company meeting, yesterday (Mr. John Field in the chair), the accounts showed a balance against adventurers, 222. 15s. 2d. A call of 2s. per share was made. The committee of management, with the addition of Mr. Alfred Richards, were re-elected, and the auditors were also re-elected. The 58 shares in the hands of the committee were sold at 31s. per share. The proceedings, which are detailed in another column, terminated with a vote of thanks to the Chairman.

At North Roakear Mining Company meeting, on Nov. 10, the accounts showed—Balance last audit, 20501. 4s. 1d.; mine costs and merchants' bills, Aug. and Sept., 33151. 19s. 2d.—339561. 3s. 3d.—Ores sold, Sept., Oct., and Nov., 54201. 13s.; leaving balance against adventurers, 19754. 10s. 3d. The shares were subdivided into 700 instead of 140, as heretofore.

At the Severn Mines meeting, on Nov. 14 (Mr. E. C. Bourne in the chair), the accounts showed—Balance last audit, 687. 1s.; calls received, 2671. 12s.; ore sold, 1131. 0s. 6d.; bill receivable, 334. 4s. 11d.—841. 18s. 7d.—Mine costs and merchants' bills, 3907. 11s. 6d.; sundries, 241. 3s. 7d.; leaving balance in favour of miners, 671. 4s. 6d. A call of 1s. 6d. per share was made. Capt. John Reynolds reported that the lode had not yet been cut in the cross-cut near the top of the hill, the end continued exceedingly wet, and, from the present appearance, he was expecting to cut it daily. They had done nothing with the dressing for the last two or three months; they must get the round buddie completed, which would cost from 71. to 101., when they would be able to clean up about 20 tons of lead and copper, including nearly 2 tons of copper now at Llandudno.

At Helvellyn Consols Mine meeting, held at Anderton's Hotel, Fleet-street, on Monday, to take into consideration a proposition made by a gentleman from Leeds, as to the future working of the mine, it was unanimously agreed that the mine be forthwith registered under the Joint Stock Companies Act (Limited); the old shareholders to retain an interest in the new company, and the management to be at Leeds. The prospects of the mine were represented of great promise, three rich copper lodes having been opened, and ore producing 25s. per ton raised and sold. It is the intention of the present company to take up a level at the base of the mountain, close to the coach-road to Kewick, where a stream of water is available for dressing the ore, so that it is anticipated there will be abundance. This level will give backs of above 350 fms., as they will drive in on No. 2 lode, and cross-cut to Nos. 1 and 3, all of which are well-defined lodes. Helvellyn Consols adjoins the rich lead mine Wheal Henry, Helvellyn, and is held under lease from Sir Henry Ralph Vane, at 1-10th royalty; it was held at 1-10th, but has been reduced in order to give encouragement to mining in Cumberland and Westmorland, which abound in mineral wealth, requiring only judicious outlay to make it equal to any in the world. A spirit for mining is springing up; several sets have been taken in consequence of the reduction of dues, and the prospects of Wheal Henry and Helvellyn. One of the mines lately brought before the public having cut a lode, has already caused the fortunate holders to ask 10000. for a 5th part of share. [We are happy to find that the predictions of our correspondent, "H. M.," are likely to be realised, and that the mountains of Cumberland will ere long swarm with busy miners.]

At Dalhousie Copper and Lead Mining Company meeting, on Thursday, the accounts showed balance in favour of adventurers, 131. 8s. 4d. The proceedings are reported in another column.

At Buller and Bertha Mining Company meeting, on Wednesday, the accounts showed calls in arrears, 1867. 15s. A call of 5s. per share was made.

At the Rhymney Iron Company meeting, on Wednesday (Mr. E. J. Hutchins in the chair), the accounts showed a profit on the year of 45,881. 16s. 11d. A dividend of 11s. on the 50s. shares, and 15s. on the 15s. shares, was declared. The iron manufactured during the year had been 11,512 tons, and the company had made the make of the preceding. The report presented to the meeting, and a full abstract of the accounts, will be found in another column.

Catherine and Jane Consols sampled 21 tons of lead ore on Friday.

The Great Hewas United Mining Company have issued a report and statement of accounts, from which it appears the balance in favour of adventurers was 6221. 13s. 2d. The tin sales from June 30 to Sept. 30 were as follows:—July, 1857, 19s. 8d.; August, 12901. 18s. 4d.; Sept., 13551. 13s. 7d. Mr. R. C. Hanam (the chairman) and Mr. Charles (the secretary) stated that the time for the usual quarterly meeting had arrived, but as there was nothing of sufficient importance to call them together, the committee had decided in issuing a report instead. The mines had been carried on with energy since last report. The new east shaft had been completed to the 20. There was now a run of tin ground in this level, for nearly 60 fms. in length and 40 fms. in depth. At the Western Mine, Wheal Elizabeth engine-shaft had been completed to the 98. A long run of tin ground had been driven through in the 66, west of the shaft; this was most important, as the ground in this direction is whole to the surface, and will form a new and extensive mine. At Stanley's, the south lode has not been productive hitherto, but is now producing some good work for tin. In consequence of the fall in the price of tin, it was determined to sell only such a quantity as would supply the wants of the mines during the depression.

The Marquitta and New Granada Mining Company received advices on Nov. 14.—SANTA ANA MINES: No profit and loss account received. Returns for Sept., 815,675. The superintendent writes as follows:—Oct. 2: The returns for last month were less, in consequence of not having a full supply of water for the barrels, and on account of two days' interruption during the time of laying down launders in wheel-pit for a second set of amalgamation barrels. This month we expect to have a full supply of water for the reduction works machinery; and, as the supply of ore is not deficient, higher returns will be made.—Oct. 3: The weather has now set in wet, and several heavy showers have occurred of late.—MARMATO MINES for the month of August: Returns, \$8238. cost, \$9589. The superintendent writes, Sept. 3: Returns: These are suffering from lack of surface water, but we hope when the rains come on to compensate for our losses.—PUMBA MINES: No profit and loss account received. [In the Journal of Nov. 7, it was stated that the returns from Santa Ana were likely to be \$21,000. The above report accounts for the falling off.]

The Copiapo Mining Company's estimated produce for Sept. —

Description.	Quintals.	Per cent.	Val. per q.	Value.
Best dark ore.....	450	27	28 1/2	\$1263.12
Best green ore.....	350	27	28 1/2	1245.97
Second-class green ore.....	1200	16	13 1/2	2662.50
Yellow bones.....	1000	13	10 1/2	1281.25
Green despatches.....	2500	12	8 1/2	2574.12
Dark despatches.....	500	11	7 1/2	453.12
Total.....	6900			\$9224.98

Sept. 30.—In the 20, driving on the north lode, the lode is 4 ft. wide, but poor. In the winze below the 20 we have intersected the north part of the lode in the cross-cut driving north in the bottom of this winze. We cannot state its width or value at present, as we have only driven about 2 ft. through it; but for that distance the lode looks very well, and has yielded a fair quantity of ore. In the 30, driving east on the north lode, the lode is 20 in. wide, producing about 1 ton of 16 per cent. ore per fm. In the 40, driving east on the 30, on north lode, the lode is from 3 to 4 ft. wide, and will yield 5 tons of 16 per cent. ore per fm. In the cross-cut driving north in the 30 the ground is becoming hard for driving. In the 50, driving east of Harman's shaft, on north lode, the lode is fully 5 ft. wide, and still yields 1 1/2 to 2 tons of 12 per cent. ore per fm. In the 60, driving east on the north lode, the lode is 1 1/2 ft. wide, producing 1 ton of ore per fm. In the cross-cut driving north in the 40 we have intersected several small branches since my last report; they are chiefly composed of muddle and low quality ore. In the 40, driving west on south branch, the branch is 1 ft. wide, and poor. In the winze sinking below the 40 the lode is 2 1/2 ft. wide, unproductive. In the 50, driving east on the 40, on south branch, the branch is 2 ft. wide, and will yield 2 tons of 16 per cent. ore per fm. In the 50, driving east on middle lode, the lode is 18 in. wide, but poor. In the 60, driving west of Harman's shaft, the lode is 3 ft. wide, producing a little ore. In the 80, east of Harman's shaft, the lode is 20 in. wide, unproductive. In the 100, driving east on the old part, on Green lode, the lode is 3 ft. wide, producing 5 tons of 18 per cent. ore per fm. The tribute pitches have greatly improved since last report; consequently, the returns for the present month are exceedingly good.

The St. John del Rey Mining Company have advices from Brazil:—*Morro Velho*, Sept. 26.—Mr. Samuel Terrill leaves this on Monday for Rio, in charge of ten boxes, containing 38,914 oits., equal to 37,845 lbs. tray of amalgamated gold—viz., seven boxes containing each 4906 oits. = 32,242 oits.; one box containing three bars of melted gold, 3185.24 oits.; one box ditto, 3183.48 oits.; one box ditto, 303 oits.; total, 38,914 oits., addressed to Messrs. W. Harrison and Co., Rio de Janeiro, with instructions to ship the 303 oits. per first packet, to your address; and also the other boxes, if the rate of exchange in London was under 27d. per £100, or upwards, to send the two boxes of bars to the mint, on company's account, and to dispose of the remainder as they might find best for the interest of the company.

Sept. 30.—Gold extracted to date, 11,743 oits., being 11,343 oits. from 1097 cubic feet of sand (result of 20 days' stamping), yielding 10-33 oits. per cubic foot, and from 476 tons of stone, equal to 2-374 oits. per ton, and 400 oits. from the Praia.

REDUCTION DEPARTMENT.—Stamps working 20 days, average 120-40 heads; ditto 132 heads, 19-61 days. The stone still continues of low quality. At the Praia, the proceeds of the grove down in the vein in ore, and that this ore is widening, being now 2 bars in width, whereas at our last report it did not exceed 1/2 bar. The stamps are still only slowly increasing in consequence of the want of iron-work, the smiths having been occupied with more urgent work for the mines.

MINE.—The measures for getting the mine again into good working order have gone on very satisfactorily. The hitch cutting and the cutting out, and sending down and putting in timber, have been done by contract. We hope to have Schneider's line partially at work next week.

The United Mexican Mining Association have despatches from the commissioners, dated Guanajuato, Oct. 14. Major Farrell writes:—JESUS MARIA Y JOSE: The state of this mine is most satisfactory as to its present yield, and most encouraging in its appearance for the future. The deepening of the shaft continues in favourable rock, and is fast progressing, and notwithstanding that such an operation might have been expected materially to interrupt and lessen the extraction, this has been for the two weeks since our last report 2200 cargas, 1200 cargas the last week, and 1000 cargas the previous week. The lode has been much of an average with that previously reported, but has rather improved than deteriorated. The works carrying on are the shaft (which has been already deepened 13 varas), the New Boca Mine, which has reached a depth of 49 varas, the pozo of communication, the frentes of San Pedro and San Pablo, those of San Alejo and San Martin, and the pozo of Dolores. Of the pozo of communication between the upper and the lower works, useful as a road in the mine and necessary for ventilation, it is most satisfactory to observe that it is going down in the vein in ore, and that this ore is widening, being now 2 varas in width, whereas at our last report it did not exceed 1/2 bar. On the 1st inst. 815 cargas were sold for \$3819, and we shall sell again tomorrow. The quarterly division of profit: with the owners to 30th ult. showed a surplus over expenditure of \$13,818, being a profit of more than \$1000 a week, and to which may fairly be added the sale of the 1st inst., and a tort delivered on that day, but which did not properly enter into the division for the quarter. Of this \$13,818, \$4606 were appropriated towards the extinction of the debt, \$6141 as actual (present) profit to the actual receipts of the company, \$10774 to the owners, the result of which follows that the next quarterly receipts will be greater, and present circumstances justify us in the hope that we may at no distant period make a remittance to London, which would be a source of great satisfaction to the commissioners as it could possibly be to the shareholders; and I may add they will also be restrained by a due sense and consideration for the existence and future well-being of the association.—ALDANA AND LA TARDADA: These mines remain as at the last report. The haciendas of Dolores and Duran are fully employed with good results, upon the ore of Jesus Maria. Quiksilver: The price of this article remains as last quoted—\$38 per quintal.—Finance: Cash balance in hand \$9093, to which may be added a further sum of \$10,000 available within the week, against which our liabilities are under \$2000.

The Royal Santiago Mining Company have advices from Cobro, Oct. 9:

—In the stope below the 32, on back of the 41, the lode is from 3 to 4 feet wide, producing 2 tons of ore per fm. In the 32 west, on south lode, the lode is 1 1/2 foot wide, but of no value for ore; a large stream of water is coming out of this end. We have not yet cut the lode in the cross-cut in the south from the 32. In the 32, east of New Isabella shaft, the lode is 3 ft. wide, producing 1 1/2 tons of ore per fm. In the 32, west of ditto, it is still poor. At New Isabella shaft, below the 32, the ground is hard, and rather troublesome for sinking, particularly since the last heavy rains. In the winze sinking below the 22 east the lode is 1 1/2 foot wide, producing 2 tons of ore per fm. In the stope in the back of the 22 the lode is 2 feet wide, producing 2 tons of ore per fm. In the 10, east of shaft, the lode is 1 1/2 foot wide, producing 1 1/2 tons of ore per fm. In the stope in the back of the 10 the lode is 1 1/2 foot wide, producing 2 tons of ore per fm. This was communicated on the 7th inst. to the 22. In a few days we shall commence stopping the ore ground west of shaft from the 10 to the 22.—Mr. Monas. Cobro, Oct. 16.—The stope in the back of the 44, or below the 32, we are obliged to suspend for want of hands, and the lode not looking so well. In the 32, driving west on the south lode, the lode is 1 foot wide, composed of spar, with spots of copper ore. In the 22, driving east of New Isabella shaft, the lode is 2 feet wide, composed of spar and muddle, and producing about 1 1/2 tons of ore per fm. At New Isabella shaft, sinking below the 22, we are obliged to suspend sinking for the present on account of the water. In the winze sinking below the 22 the lode is 1 1/2 foot wide, producing 1 ton of ore per fm. In the stope in back of the 22 the lode is 3 ft. wide, producing 2 tons of ore per fm. In cutting prospect for a set of timber, the 22, on old lode, about 5 fms. to the east of the New Isabella shaft, we discovered a small branch of copper ore in the back of the level; we have commenced working on it, and it has greatly improved. The lode is from 3 to 4 feet wide, producing 3 tons of copper ore per fm. The other parts of the mine are looking well.—Capt. Simmons.

The Wildberg Mining Company have advices to Nov. 14.—The underground work is proceeding well, considering the mine is so very hard. The different bargains are worth for silver-lead ore as follows:—Michael's shaft, 2 1/2 tons per fm.; the end driving east from the bottom of No. 1 sink, in Umbruck's level, 4 tons per fm.; and the four stopes in the back of this level will average 3 tons each per fm. The end driving east from Carter's shaft is at present passing through a channel of schuffer, under which the Erbelsberggang found a rich shoot of ore a little further east, and we hope to reach the same about the end of this month. The stope in the bottom of the lode, about 3 fathoms behind, is worth 3 tons per fm., but the lode going down near Carter's shaft is poor; nevertheless, this must be got down as quickly as possible, and the driving started to get under the said shoot of ore, so as to get back stope. Carter's shaft is still very hard, but in the bottom we have some small branches of lead ore, from which I think we shall soon get into a change of ground. The lode in the Erz Kammer is worth full 10 tons of silver-lead ore per fm. In conclusion, I am most happy to inform you that we have driven a cross-cut south from the middle driving, west from the No. 1 sink, in Umbruck's level, and have this day cut the lode, where it was heaved by a slide 2 1/2 fathoms, and is worth at this point full 3 tons of silver-lead ore per fm. This appears to be a very important discovery, as it is not likely the old men have worked on this lode below the Umbruck's level; therefore, should the lode continue good we shall have back stope for many fathoms in height.

The Pontgibaud Mining Company have the following advices from Capt. Richard:—PAVAL: The 70 metre level, south of Bontoux's shaft, on the Armand lode, is still looking well, and is producing 4 tons of ore per fm. The 20, north of Bontoux's shaft, on Felix's lode, has laid open a good piece of ore ground, and is still looking kindly, but not producing ore to value. The 30, north of No. 1 rise, on Henry lode, is looking well, and turning out 1 1/2 tons of ore per fm.; the stope throughout this mine are looking tolerably good, and everything working well.—BARBECOT: The 20, north of Leontine's shaft, has been resumed: the lode in the end is large, composed of porphyry, bespangled with ore. The stope and tribute pitches both here and at Brod are about the same as they have been for several months past.—MICHAEL: The 40 metre level, north of Taylor's shaft, is somewhat improved since my last report, now worth 1 ton of ore per fm.; the same level, south of Taylor's shaft, is still producing 4 tons of ore per fm.; both these ends are looking very kindly, the lode being well marked on each side. The winze in the bottom of the 20 metre level, north of Taylor's shaft, on the No. 3 lode, is producing 2 tons of ore per fm.—ROSE: The ground in John's engine-shaft continues favourable for sinking, and the men are making good progress. The adit north of John's shaft is in aldy ground, and poor. The stope about St. Joseph's shaft are yielding fair quantities of ore.—HOCOR: The side lode in the Stollen maintains its size and quality (4 tons per fm.), and has still the appearance of a separate lode. The deep adit level, south from Armand's shaft, is looking promising, the lode being large and all saving work; the No. 1 winze, north of shaft, in the same level, is still producing 4 tons of ore per fm. The 20, south of St. Peter's, on the Emily lode, is worth 1 1/2 tons of ore per fm., and looking promising. Our last sampling was as follows:—Rose: 33 tons, less water; produce for lead, 554; silver, 234 ozs.—Barbecot: 64 tons, less water; produce for lead, 491; silver, 334 ozs.; showing increase of value over last month of about 2001. Everything is working well.

The New Grand Duchy of Baden Mines have advices dated Munsterthal, near Freiburg, Nov. 16:—At the Schindler Mine, the old shaft is again in course of clearing, and is now drained and cleared 24 fms. 1 ft. below the adit level. We have just passed the large part of the shaft, from whence it appears a lode is driven north and south, but it being quite full of old sludge and rubbish we closed it up with timber for the present, to push downwards as fast as possible; at the present bottom the shaft is about 12 feet; the No. 1 winze, north of shaft, in the same level, is still producing 4 tons of ore per fm. There is still a quantity of old broken pieces of timber with the rubbish we are clearing, and we occasionally find some stones of lead work of very good quality. The work of the new draining-machine is now being got on with satisfactorily. At the Teufelsgrund Mine, the lode at Louisen level is worth from 4 to 5 oits. of ore per fm. The lode at Wilhelm's level is producing 5 oits. per fm. The lode at Frederick's is improved, now producing 8 oits. per fm.—S. RICHARDS.

The Fort Bowen Mining Company have advices from Capt. Clemes to Oct. 21:—The water has been drained 54 feet out of No. 3 shaft, with also some repairs done to it. The engine, since the alteration has been made (named in my last) continues to work remarkably well, requiring about one-third of its time to keep the water to the depth above named. A new level has been commenced 47 ft. deep, which is the horizon of the proposed adit, thus preparing the way should you decide on continuing the operation. I was now give you a few particulars of the condition of the workings. On my first going into No. 3 shaft after the water was taken out, I found the eastern level, stope, &c. completely filled by fallen masses to within about 10 feet of shaft. In the small drive driven west 29 ft. the timbers were in a very threatening state, which have since crushed together; the new level alluded to is 13 feet below this. I found the shaft in a more favourable state than I had anticipated, though requiring many more repairs than our time will admit of. The greatest difficulty we had in these examinations was the want of air, there not being sufficient to keep the candles alight; this, however, was soon remedied, by introducing superficial ventilation, and which will have to be continued the rest of the work of the workings. At the commencement of this new level a flookeny band, very disordered and poor, varying from 2 to 6 in. wide, presented itself, but we had not proceeded many feet when it increased to 18 in. wide, and yielding, by the result of the samples, ordinary stamping ore; from this point it assumed a large lode character for several feet wide, auriferous slightly throughout, some of the samples showing favourably, but the best test will be the old stamps, where I have already deposited some 60 tons, which I intend at the earliest opportunity to have reduced. The lode in the new level is composed of light blue flake bands, ferruginous quartz, and brown clay matrix, with a copious discharge of water from every part of the lode, thus rendering the ground exceedingly soft and difficult for driving; so treacherous has the ground been at times, that with every exertion and care we could scarcely make any headway; it is now driven 5 fms. from shaft, with an improved appearance in its condition for driving, and also its auriferous produce. Whatever may be the result of the lode in the new level, it is to be regretted, since so much money has been expended to attain this point, that you should now, when the value of the lode west can be so readily and economically proved, discontinue operations; that a portion of this expense will be met by the returns from the trial itself there is every probability, which is all I can feel justified in saying, leaving the question for you to decide.

The Liberty Mining Company of Virginia have advices from their mine to Oct. 29, stating that although the heavy rain had somewhat impeded the operations, it did not occasion the stoppage of the stamps a single hour, the principal hindrance being in the carriage of ore, the mine house, the past three weeks having had a great deal of rain, and the weather had cleared up, and having plenty of good ore to run in, there was but little doubt that when the mine was fairly out they would again have made refined gold to the value of between \$1200 and \$1300, or 2601. With a little management the stamps would continue working at the present rate until Christmas, and will start again early in January, immediately after the holidays. It should be borne in mind that the returns of the past and present months are no more criterion as to the returns that can with the best management be obtained, than those of 1855 and 1856 were of these lately reported, and that the returns of the past months are no more criterion as to the returns that can with the best management be obtained, than those of 1855 and 1856 were of these lately reported, and that the returns of the past months are no more criterion as to the returns that can with the best management be obtained, than those of 1855 and 1856 were of these lately reported.

The Nouveau Monde Mining Company report on the Alotepeque Mines for Sept. 1.—SAN PABLO: During the month Cornubia shaft has been drilled and retined 13 varas, and was opened to our top level on Sept. 18, since then the men have been engaged putting in ladder-rod, dividings, casing, &c., and I am glad to state that the shaft is now complete to San Vicente level, from whence we shall commence drawing through it on Monday next. I have this day (Sept. 26) set to the different pairs of native miners all the other underground operations that were stopped from want of ventilation, and hope, from the present promising appearance of the ends, to have something good to report on soon.

The Lusitania Mining Company have advices from Portugal to Nov. 7: PALMAL MINE.—BASTO'S Lode: The ground in Taylor's engine-shaft is harder for sinking through than it has been for some time past. The lode in the 28, driving east of Taylor's engine-shaft, is 4 ft. wide; 3 ft. of the south part is composed of hard quartz, and 1 ft. of the north part is composed of quartz, kallas, and good stones of copper ore. The lode in the 28, driving west of the same shaft, is 4 1/2 ft. wide, the south part is composed of hard quartz, and the north part of soft quartz, pryan, and copper ore, worth 2 tons per fm. The lode in the 18, driving east below the 18, west of Taylor's engine-shaft, is 2 ft. wide, composed of quartz and kallas, with good stones of ore, but nothing to value. The lode in Oliveira's winze, sinking below the 18, east of Taylor's engine-shaft, is 2 ft. wide, worth 3 tons per fm. The ground in the 18 cross-cut, driving south towards the Mill lode, is rather improved, but we have not yet met with any more lode. The lode in River shaft, sinking below the 18, is 3 ft. wide, the south part is of hard quartz, and the north part, 2 ft. wide, is composed of soft quartz, pryan, and good stones of lead, while there are other stones containing a little lead, mangle, and copper. The lode in the 18, driving east of River shaft, is 4 ft. wide, composed of quartz, pryan, and muddle; the lode in the 8, east of the same shaft, is 3 ft. wide, composed of hard quartz, with a small branch of floukan on it. The lode in the adit level, driving east of Pinto's shaft, is 2 ft. wide; the south part is composed of soft spar spotted with lead, with a branch on it 6 in. wide, composed of spar, capel, and good stones of copper ore. The lode in the adit level, driving south-west of the slide, is 2 feet wide, composed of kallas and quartz, with a small branch of black floukan in it. The lode in the stope No. 1 in the bottom of the 28, east of Taylor's engine-shaft, is 6 in. wide, worth 1 1/2 tons per fm. The lode in stope No. 2 in the back of the 18, is 1 ft. wide, worth 1 1/2 tons per fm.; this stope is to the west of Taylor's engine-shaft. The lode in the stope No. 3 in the back of the 18, east of Butler's winze, is 1 ft. wide, composed of quartz and good stones of ore, is suspended at present. The lode in the stope No. 4 in the back of the 18, west of

Butler's winze, is 1 ft. wide, worth 1 ton per fm.; this stope is now worked through to the stope No. 5 in the bottom of the 8; the latter will now be extended, and the men will be removed to rise against Tava's winze from the back of the 28 west.—MILL Lode: The lode in the rise, which is communicated to the stope above, is 8 in. wide, worth 1 ton per fm.—HOUSE Lode: The lode in Pisco's winze sinking below the adit level, east of the old shaft, is 1 ft. wide, composed of quartz and kallas.—OAK SHAFT: The ground in this shaft is without alteration to notice.

Our Hull correspondents (Messrs. T. W. Flint and Co.) report that the tightness of the money market has produced the usual effect of causing a few sales on the part of bona fide holders of stock, but they are to a trifling extent only, and are almost balanced by purchases for investment. Speculation there is none. It is matter of surprise and remark, both to railway men and others, how exceedingly well railway stock has stood the shock of the panic.

Our Sheffield correspondent (Mr. George Wilson) reports that there has been a moderate amount of business done in mining shares during the week, considering the present state of the money market. The quotations are as follow:—Bright-side and Froggatt Grove, 3 1/2 to 4 1/2; Chapel Dale, 3 1/2 to 3 3/4 prem.; Cranfant, 1 1/2 to 1 3/4; Eram, 58 to 60; Mill Town, 3 1/2 to 3 3/4; North Derbyshire, 2 to 2 1/2; Peak United, 2 to 3; Prince of Wales, 2 to 2 1/2; and Sney Way, 3 to 3 1/2 prem.; the lode Prince of Wales Mine has improved considerably during the last few weeks; the lode is now getting large, and is composed chiefly of friable quartz, interspersed with lead and blende; altogether, it has a very promising appearance. It is determined to continue sinking the engine-shaft, as there is now every indication of the mine becoming richer as the works get deeper.

The return of the Bank of England for the week ending Wednesday, compared with the previous weekly return, shows the following results:—

	£22,551,595	Increase £1,413,580
Circulation issue.....	21,406,410	223,055
Circulation active.....	13,930,165	1,023,821
Public deposits.....	6,407,134	3,037,694
Government securities in banking department.....	30,299,270	4,185,817
Other securities in banking department.....	6,484,096	686,412
Coin and bullion in both departments.....	829,544	23,531
Seven day and other bills.....	3,433,500	69,144
The Best.....	1,145,185	190,475

This is one of the most remarkable returns ever published. The extent to which the directors have acted under the authority given in the Government letter is here shown: 2,000,000 of Government securities have been transferred from the banking department to the issue department. In the latter department the aggregate of "Government Debt" and "Other Securities," which has hitherto stood at 14,475,000, consequently becomes 16,475,000. In other words, the Bank have infringed the Act to the extent of 2,000,000. To a considerable extent, however, this infringement is more seeming than real. Of the 2,000,000 of new notes created against Government securities deposited in the issue department, 1,145,185 in notes and 404,815 in coin, making a total reserve of 1,550,000, remain in the Bank's till. Consequently, the extent to which the public have actually been benefited by the new issue of 2,000,000, so far placed at their disposal is really less than 1,462,185 of notes and coin shown in the previous return. The Bank appear also to have sold 1,000,000 of Government securities in the market. The enormous increase in the "other" or private securities is partly counteracted by the increase of 1,193,043 in the aggregate of deposits. The 686,412 of coin withdrawn remains in the country, being held in Scotland and Ireland.

LEAD ORES.

Mines.	Sold on the 2d November.	Price per ton.	Purchasers.
Vale of Towry.....	31	14 6 0	Sims, Williams, & Co.
ditto.....	7	13 7 0	ditto
ditto.....	5	12 8 0	ditto
ditto.....	12	9 11 0	ditto
Sold on the 9th November.			
Great Wheal Baddern.....	15	19 6 0	Locke, Blackett, & Co.
ditto.....	15	14 0 0	J. T. Treffy.
Sold on the 16th November.			
Foxdale.....	100	27 5 6	Walker, Parker, & Co.

COPPER ORES.

Sampled November 4, and sold at the Royal Hotel, Truro, November 19.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols.....	129	£3 3 6	West Caradon.....	38	£2 18 6
ditto.....	115	8 13 0	Bedford United.....	97	3 18 6
ditto.....	113	2 14 0	ditto.....	81	7 3 0
ditto.....	111	7 11 0	ditto.....	63	4 15 6
ditto.....	110	3 16 0	Hington Down.....	64	7 16 0
ditto.....	107	8 8 0	ditto.....	62	4 6 0
ditto.....	106	2 17 6	ditto.....	54	3 9 6
ditto.....	105	8 1 6	ditto.....	50	4 5 0
ditto.....	104	3 2 0	Wheal Edward.....	58	3 7 0
ditto.....	103	7 19 0	ditto.....	35	3 18 0
ditto.....	102	2 16 6	ditto.....	33	3 12 0
ditto.....	101	2 17 6	ditto.....	32	5 1 6
ditto.....	100	8 7 6	ditto.....	25	6 18 6
ditto.....	97	8 2 6	ditto.....	17	12 15 6
ditto.....	96	1 13 0	Collacombe.....	58	3 9 6
ditto.....	95	8 5 0	ditto.....	58	4 6 0
ditto.....	93	3 12 6	Wheal Friendship.....	66	4 2 6
ditto.....	86	3 6 6	ditto.....	41	13 18 0
ditto.....	85	3 1 6	ditto.....	36	13 18 0
ditto.....	80	4 3 6	Kelly Bray.....	98	3 18 6
ditto.....	79	2 14 6	ditto.....	26	3 8 6
ditto.....	74	3 16 0	South Bedford.....	92	2 4 6
ditto.....	52	3 7 0	Calstock Consols.....	65	14 3 6
ditto.....	51	1 8 6	ditto.....	51	14 3 6
ditto.....	49	3 4 6	Wheal Russell.....	51	2 14 6
ditto.....	42	3 7 6	ditto.....	37	0 17 6
ditto.....	40	4 10 6	Tavy Consols.....	71	2 17 6
ditto.....	37	3 3 0	ditto.....	13	8 17 6
ditto.....	36	3 4 6	Devon Buller.....	46	3 16 6
ditto.....	28	11 13 6	ditto.....	14	9 19 6
ditto.....	16	2 15 6	Wheal Emma.....	49	2 4 6
Phonix Mines.....	81	3 6 6	Gawston.....	46	2 4 6
ditto.....	79	3 6 6	East Wheal Russell.....	25	6 18 6
ditto.....	77	3 16 6	ditto.....	12	20 14 6
ditto.....	76	5 9 0	Wheal Crebor.....	23	1 14 6
ditto.....	83	4 17 6	Devon and Courtenay.....	16	2 16 6
ditto.....	43	4 14 6	ditto.....	5	8 4 6
ditto.....	36	3 10 0	East Wheal George.....	17	4 9 6
West Caradon.....	67	6 11 0	Wheal Penval.....	1	17 1 6
ditto.....	60	6 1 0	Penval's Ore.....	5	4 18 6
ditto.....	55	7 9 6	Vivian's Ore.....	4	2 7 6

THE PROGRESS OF MINING IN 1856.

BEING THE THIRTEENTH ANNUAL REVIEW.
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Notices to Correspondents.

* Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

VENTILATION OF COAL MINES.—In reply to Mr. Hopkin's letter, contained in your last Journal, I shall (nothing unbecomingly) expect to see him present, to take part in a public discussion on the Ventilation of Coal Mines, which will take place on Dec. 2, in the National School Room, at Hutton-le-hole, at seven o'clock P.M.—J. WALKER: Hutton Collieries, Nov. 17.

SLATE QUARRIES.—Having noticed the enquiry of "J. B." (Liverpool), as to the reason the agents of Lord Palmerston and Huddart and Matthews's quarries being called to inspect and report on slate quarries more than other agents,—my belief is this, because they are well-known practical quarrymen, and that their skill in working the quarries of which they are the managers brought them to the notice of the public; and, further, I believe that the opinion of either gentleman may be relied on. I fully agree with "J. B." that men who are agents for good quarries are generally called to inspect, when, perhaps, men of superior knowledge are unneeded, because they never were fortunate enough to get appointed agents of good quarries. I thought "J. B." had become a railway manager since he left the Dinas Ddu Quarry; but am glad to find he is still in the mining field, and hope to hear from him often.—EVAN EVANS: Bryn-mawr Quarries, Nov. 17.

IRON MANUFACTURE.—The series of papers, "Data for the Use of Blast Furnace Managers at Iron-works," by Mr. S. B. ROGERS, of Nant-y-Glo, originally appeared in the Journal from Dec. 18, 1841; they were again published, revised by the author, from Nov. 12, 1842. Mr. ROGERS'S new work, on "Iron Metallurgy," is now ready for delivery, price 25s.

Kewick Mines.—Can any of your correspondents, or will the committee of management, inform the out-adventurers what is doing at the Kewick Mines? I called attention some time back to the reports in the Journal, which were very flourishing, so far as the quantity of ore said to be in the stopes and pitches (as much as 6 tons per fm. in the aggregate), but it was in vain I looked for sales to correspond with this. If I am rightly informed, the captain and purser have been dismissed, and fresh hands appointed; but this I do know, that I have had a call of 150, on 50 shares, or 6s. per share, since which the reports have been expanded from your Journal. In an article, on March 12, 1855, it was stated that the committee of management were smothering the most respectable merchants in the City, but that they wanted a little more mining knowledge. Surely they have had time to supply that want; at all events, they might have had the mine inspected by some competent person, when they found so many levels, stopes, &c., producing so much ore according to the agent's report, and so little sale being effected. I trust some one will enlighten us as to the true state of the mine.—A SHAREHOLDER.

NORTH STAFFORDSHIRE CONSOLIDATED MINING COMPANY.—"A. E." (Manchester).—The company has ceased to exist for some time past. The last place in London where they carried on business was 25, Tokenhouse-yard, Mr. J. T. Tidd being the agent.

CHANCELLORSVILLE FREEHOLD GOLD MINING COMPANY.—It appears to me that a great outcry has been made about the management of this company, because they have not reduced the ore at the time they promised, and returned gold. Any one acquainted with quartz mining must be aware of this simple fact, that although hundreds of tons of quartz may be raised, yet it is only in a particular part of the story that the gold is found; for instance, gold may be discovered in a certain portion of a quartz vein, afterwards following the lode for hundreds of fathoms it will completely disappear. May we not, therefore, assume that the stuff advertised by Mr. W. S. Trotter, as lying there in 1855, was worthless, and that Mr. Harris, when he crushed the 7 tons obtained gold from it; but, probably, now has been grinding the remainder without any result. This may account for the probable delay. However elaborate the mechanism may be, it is impossible for the greatest talent to extract gold from a matrix in which it does not exist.—COMMON SENSE.

MANGANESE STEEL.—I understand that manganese has been introduced into some large ironworks in Lancashire for making a rough kind of steel. Can any of your correspondents inform me for what purpose the steel thus made is applied? what is the method of manufacture, and whether the process is the subject of a patent?—S. X. S.: Newcastle, Nov. 19.

IMPROVED SAFETY COALS.—You stated in your last Journal that a cargo belonging to the Manchester Patent Coal Company had, when put to the test, answered every expectation. Can you inform me what are the peculiarities in the investigation? I think, if really an improvement, it could readily be applied to some of the pits with which I am connected. I prefer a published explanation to that obtained in a private letter, and, therefore, write you. By the description being printed, other inventions may be brought to light, which "will make your own appear a crow," and the working miner will receive additional benefit.—H. C.: Bolton, Nov. 18.

In the notice of the auction at Garsway's, last week, it was stated that 180 shares in the Dalriah Mining Company were bought in at 5s. each. This is an error; of the 180 shares originally advertised for sale for arrears of call, 170 were previously withdrawn, having been fully paid-up, and only 10 shares were so bought in.

WHEAL ZION.—I perceive that this adventure has again shifted its quarters. As an outlying shareholder, I cannot be expected to know the cause which has led to this step; it does, however, appear strange to me that no secretary appears to give satisfaction. Whatever opinion the committee of management may have in the property, their consent in the matter must be obtained. I am sorry to hear that the shareholders are dissatisfied. Why, Mr. Henry Dalloway, who was elected for the sole purpose of looking after the interest of the Bath shareholders, summoned to the last meeting? Such a question as the dismissal or suspension of the secretary ought to have been discussed in a full committee, instead of being decided, as it was, by a section.—P. D.: Bath, Nov. 16.

QUARTZ ROCK COMPANY.—Will any of your readers kindly give me any particulars relative to the Quartz Rock Gold Mine scheme? I am unable to procure information in a proper commercial manner, on account of there being no office, which I beg to plead as an excuse for troubling you.—A SCRIBER: Brighton, Nov. 18.

"BIG BEN."—"Founder" (Devon) will find his views corroborated in a notice respecting the great bell, in another column.

MARQUITA AND NEW GRANADA COMPANY.—"R. T." (Richmond).—The advices to the end of August, inserted in the Journal of Nov. 7, gave the cost and returns both of the Santa Ana and Purima Mines, but not the Marmato. Our correspondent will find in another column the report received Nov. 14, in which the returns and cost of the Marmato Mines are given, but no profit and loss account either for the Santa Ana or Purima Mines.

WHEAL MARGARET.—My letter of the 3d inst. had nothing whatever to do with any of the officials—first, not one of them; nor is any one excepting yourself, that I know of, a representative of the authorities. I am, however, pretty well acquainted with the mine, but am open to conviction.—AN OLD SHAREHOLDER: Penzance. [This announcement renders the publication of the letter of "An Adventurer" unnecessary. Attention having been directed to the matters discussed, doubtless more caution will be exercised, and defects rectified. The fact of Mr. T. Treweek, jun., having had to retract his statement, that most of Wheal Kitty tin had been extracted from Wheal Margaret, must have its effect in checking the circulation of similar rumours, "emanate wherever they may." If proprietors were to insist on the publication of authenticated reports, much mischief would be averted, and in some cases knavish attempts defeated.]

ST. JOHN DEL REY MINING COMPANY.—"R. M." (Reigate).—The last dividend of 11s. was declared November, 1856. The amount paid is 16s. 15s. per share upon which 34l. 7s. 6d. has been received by the proprietors, of whom several are original holders, consequently not at all affected by the various fluctuations in the market.

"T. S. B." (Brighton).—The resolutions of private meetings of directors and committee-men, as a general rule, are never made public, while to those of shareholders great publicity is always sought whenever the directors deem it necessary for the welfare of the association. Instances do occasionally occur where the resolutions of committees are reported; but in general this only takes place where some particular object is required to be brought into notice.

WHEAL UNY.—"J. L." (Brighton).—A report of the last meeting appeared in the Journal of Oct. 17. A call of 5s. per share was made, which was expected to be the last. The total amount expended by the present adventurers, in round numbers, is 25,600l.

CARNORTH AND SPERNAE CONSOLIDATION.—Perceiving in a recent Journal some remarks upon these two tin mines, and being a shareholder in each, I may be allowed to add a few particulars to those already published. Carnorth, after making heavy losses for several years, paid a few shillings in dividends, but has now ceased for nearly two years. But I would more particularly allude to Spernae Consolidation, which paid its last dividend on Dec. 10, 1855, and for the last four years has been making heavy calls. The reports are meagre and unsatisfactory, yet the everlasting committee always pass a vote of thanks after the usual heavy call has been made. It is difficult to obtain information; your call is demanded as soon as made, under legal threats, and your name printed in full as a defaulter, and sent round the kingdom in reports to shareholders, the arrears being frequently but a few shillings. The purser of these two mines is at least one-third owner, and rules accordingly, as representing the majority, regardless of the shareholders' remonstrances. I call upon the shareholders to convene a meeting, or, by proxy and unity, to cause these mines to be properly inspected and developed, and thus prevent the continued heavy calls (especially with money worth 10 per cent.), without results.—WELLSLEY A. ASHMOORE: Guernsey, Nov. 17.

TARNANE MINE.—"Inquirer" (Dorset).—This mine, and the whole of the materials, were sold, by auction, on Oct. 20 and 21 last, but as it requires some time before the assets can be divided, it is not an uncommon circumstance for sales to take place in the shares, even after the property is disposed of. Hence the quotation last week.

WHEAL EDWARD AND WHEAL ARTHUR.—Being interested in Wheal Edward, and having waited a long time in the hope of seeing a settlement of the question relative to the quantity of ore taken from Wheal Edward by Wheal Arthur, I now beg to bring the matter before you, as it seems to be just in the same position as it was some time ago. It appears that two diallers from the far West have been engaged to dial, inspect, and report on the amount that should be paid. Now, I would suggest that, instead of taking so much trouble, and causing so much expense, two disinterested agents should be appointed, and, in the event of their not agreeing, let a third party be called to give his opinion, which should be binding on both sides. I do not believe Wheal Edward adventurers want one penny more than is just and fair, and, on the other hand, the Wheal Arthur, I am sure, wish to pay what is right; therefore, I trust a settlement of this affair will be urged, whether it be for 500l. or 5000l. The loss of the interest in the mine is bad enough for the Wheal Edward people to bear, I should, therefore, suggest that all the expenses of dialling, &c., be borne by the Wheal Arthur Company. Should this not be settled prior to the next Edward meeting, I would advise that steps be taken to have the matter disposed of, as it has been in hand more months than it ought to have been.—SHAREHOLDER: Leadonhall-street, City.

DEN MOUNTAIN MINING COMPANY.—Can you inform me what the directors are doing, and when it is likely they will call a meeting?—H.: Pall Mall, Nov. 19.

THE GREAT HEWAS MINE.—"A Subscriber" (Bedford).—The tin sold in July, 1855, amounted to 515l. 9s. 2d.; July, 1856, 607l. 3s. 3d.; July last, 1081l. 19s. 8d.; Aug. 1855, 525l. 14s. 5d.; Aug. 1856, 665l. 19s. 5d.; Aug. last, 1298l. 18s. 4d.; Sept. 1855, 376l. 5s. 7d.; Sept. 1856, 515l. 14s. 9d.; Sept. last, 1335l. 13s. 7d. The next sale must be materially affected by the recent fall in tin.

JOINT-STOCK COMPANIES.—"H. P." (Bury St. Edmunds).—There is no necessity for making the liability of the shareholders limited, the Act expressly providing that companies may be registered with or without limited liability. In the case of a limited company, each shareholder would be liable for the total value of the shares he subscribes for; thus, if he subscribes for 100 shares of 5l. each, his liability would be 500l., and we opine he could not free himself from liability under that amount. With regard to forfeiture, shares may be forfeited for non-payment of calls, and then become the property of the company; but "A Shareholder" rather refers to relinquishment, which could only take place provided a clause were inserted, authorising the directors for the time being to accept the transfer on behalf of the company of any shares which shareholders may wish to relinquish; and the insertion of such a clause would evidently be an abuse of the Act, unless it could be proved that the shareholders were desirous to hear the matter referred to a body that attaches to the shares, which cannot be done. This objection would, of course, only apply where the relinquishment was large, as otherwise the position of the creditors would be no worse than where a company commences business before the capital is subscribed. For the protection of creditors, a clause, rendering the promoters liable for all debts contracted until the whole capital is subscribed, is much wanted; and from the facilities offered for fraud under the present system, there can, we think, be little doubt that some such clause will be, at no distant date, introduced.

THE TALYRAE QUARRIES, AND THEIR MANAGEMENT.—The letters of Mr. Evan Evans are obviously intended for those residing elsewhere, and not for any local purpose. His management of slate quarries has been so unfortunate that his services have been dispensed with by all in turn, and he is now evidently fishing for a new berth. The late manager of these quarries was warmly supported by Mr. Evan Evans, and I must conclude that the management had the approval of this self-styled quarry inspector. The result was by no means flattering to the ability or honesty of the management; for, when I became manager of this property, there was not a single bargain which could be worked in any of the quarries without clearing. I am working the quarries upon sound and approved principles, which are fully admitted by every native quarryman and slate dealer who has inspected the workings, which it is very doubtful if Mr. Evan Evans has seen at all; and I undertake to give him as much as he will require by quarry inspecting for the next twelve months, if he will produce a single individual of practical knowledge who will back up his assertions. Every quarry was full, and every engine and piece of machinery and plant out of repair, when I assumed the management in August last, not a week or two since, as he intimates; and working night and day, not with 40, but nearly 100 hands, I am able now to produce some of the finest slates in the world, and have restored some valuable machinery to a condition of usefulness which it had not exhibited for the last 15 years. A few chills are not worked by any company, but solely by one proprietor, and as he has not found fault with my management, I think it is not in very good taste for Mr. Evan Evans to offer his services in this extraordinary manner, before a vacancy has occurred.—THOMAS COLLIER, Manager of the Talyrae Slate Quarries: Talyrae, Nov. 18.

FOREIGN SKETCHING.—The winding-up of the Mexican and South American Company probably may tend to check the employment of capital in foreign smelting-works. At the meeting of the company was strictly private, it is impossible for any one to judge what were the causes which led to the late unfortunate results. I am informed by a large shareholder that the gentleman who was appointed to superintend the smelting operations was a barrister; and I am at a loss to discover how practical training in the line of smelting can qualify any person to superintend metallurgical operations. We might just as well go down to Swansea, and select from the copper-works our County Court judges. The Welsh are naturally of a litigious disposition, and the probabilities are that the smelters there, from experience, have a greater acquaintance with law than gentlemen of the legal profession can possibly have of copper smelting. I am not acquainted with the gentleman in question, nor am I aware of what his qualifications may be. In many of our foreign mines and reduction establishments the rule appears to be that persons should be appointed as secretaries and superintendents who have had no previous acquaintance either with mining or metallurgy; thus we have seen naval commanders, half-pay marines, bankrupt merchants, retired general practitioners, pseudo-mechanical, chemical, and civil engineers, and members of the law, appointed to these difficult and responsible situations. The consequence is that, having had no previous training, they are found incompetent for the situations they have undertaken, and only obtain an insight in the business when they have dissipated the capital of the shareholders.—PRACTICAL: Nov. 19.

THE STAFFORDSHIRE IRON TRADE.—Our Wolverhampton correspondent enters very fully into the disastrous consequences to the general trade of the district, from the stoppage of the Wolverhampton and Staffordshire Bank; but the pressing demands upon our space prevent our publishing his communication.

TURN-TABLES.—"R. R." (Manchester).—We should be glad to receive a description of the invention.

AUSTRALIAN CORDILLERA COMPANY.—Is there no probability of the money in hand, belonging to the shareholders of the Australian Cordillera gold concession, being equitably divided? If not, truly shareholders are as much to blame as the directors, in encouraging them in their iniquitous practices by meanly submitting to them.—R. N.: Brighton, Nov. 18.

HELVETIAN CONSOLS.—Your correspondent, "L." will find his enquiry answered by reference to the report of a meeting of shareholders, in another column, at which it was determined to register the company under the new Act, limited; the management to be at Leeds, where all information is to be obtained from the secretary.

ASHBURNTON UNITED.—"J. P." will find a notice respecting this adventure under the heading "Mining Notabilia."

EAST ALFRED CONSOLS.—I do not consider the reasons assigned by Capt. Skewes, in repudiation of the charge of "A Shareholder," sufficient to justify him in throwing "A Shareholder's" clothes out of the account-house whilst he is underground, and particularly so after he had shown his authority from the manager.—A SHAREHOLDER: Cumborne, Nov. 18.

RECEIVED.—Mr. D. Muebet (Mathematicians, No. III.).—Mr. Godefroy (Extraction of the Precious Metals).—Mr. W. Spence (Trial of Patent Causes).—Mr. C. S. Richardson (Mines and Minerals of America).—Mr. Gunther (Hints to Mining Companies).—"Vigero" (Mining in Mexico).—"Senex" (Law of Bankruptcy).—Mr. Thos. Butler (American Bonds as Investment).—Mr. C. S. Richardson (Management of the Colombian Mining Association).—Sir James Murray (Decorating Sewage Matters).

SCRIBERS IN AMERICA.—Our friends in America are informed that they can obtain the Mining Journal by ordering it from a bookseller in any of the principal towns in the United States. Mr. Trübner, of Paternoster-row, is the London agent, and sends parcels by every mail to the principal booksellers and news agents there.

THE PROGRESS OF MINING IN 1857.

By J. Y. WATSON, Esq., F.G.S.

Complaints having been occasionally made, that certain mines had not been noticed in the Annual Mining Review, it is particularly requested that agents and pursers will forward a brief account of their mines (especially of those in new districts), either to Mr. J. Y. WATSON, St. Michael's-alley, Cornhill, or to the Editor of the MINING JOURNAL, 26, Fleet-street, as early in December as possible, that they may be embodied in the forthcoming Review.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, NOVEMBER 21, 1857.

The still further and very serious decline of the prices of metals have lately undergone threatens materially to interfere with our home mining interests. It would be madness to attempt to hide such facts from ourselves—it would be equal folly to join in a wild panic, and fear of ulterior consequences: we hold it to be the wiser part to look the evil steadily in the face, and fully prepare ourselves for the consequences. Without pondering over the causes that have led to such result, and its probable effects, let us consider, if we so severely feel the blow at home, what will the foreign miner experience? The majority of their mines are worked by British capital, and their ores smelted in this country at an expense which has been proved to interfere little with the home produce. Their ores of low percentage will now be entirely excluded from the market; none but the best will pay the cost of returning; if better prices be not realised, the effects will soon be apparent by the Swansea Ticketing List. Knowing the character of the smelters, too, as we do, we cannot help thinking (we hope erroneously) they raise a helping cry to suit their own purposes, instead of endeavouring to quell the fears now most certainly displayed by all connected with the metal trade. We learn that at the Redruth ticketing, last week, there was an evident indisposition to purchase by all present; that it appeared as if each would, if they could, have closed their books, and have left the room; still, all was ticketed for at the reduced standard, and, doubtless, the two next large ticketings will be sold at a price. Now, we can scarcely blame the smelters on this occasion, especially if they lower the prices of copper proportionally to the price of the ore. We know at what limit that will bear to be produced at all; when that shall have been reached, we shall advise our friends to buy the metals, for, as certain as day and night alternate, there will be a tremendous reaction when this point shall have been reached. Speculators will do well to purchase in such mines as may have suffered from the depression, for they must and will do well again.

It is all very well for the smelters to lay in good stocks at low prices; doubtless they will do so, and realise fortunes. In the mean time, it behoves the miner to be on his guard; to act prudently; not to exhaust his mines more than from bare need, and to curtail every possible expense. We learn from several sources that the miners themselves submit with patience to a reduction of their wages; the necessary supplies of timber, coals, candles, and freights, must and will be reduced. Now, if ever, this is a time for a crusade against the imposition of samplers' fees and extortions. We repeat, every effort must be made, every nerve strained, to prevent the calamity that must ensue should a further serious lowering of prices (as apprehended) take place. We, however, are by no means disposed to view the subject in so melancholy a light as many persons regard it; the elasticity of the trade is such, that when the lowest point has been attained a rebound will take place; and we think the lowest has been, or nearly so, reached. Amongst the miners themselves no very gloomy forebodings are indulged in; they know from experience such vicissitudes are amongst the casualties they with others in trade must periodically encounter; their fears are more centered on the inexperienced adventurer, who "dreads yet doubts" in the best of times; the miners fear they will, not knowing, or having confidence in the business, take panic, and make what is confessedly bad still worse. We but do our duty to warn such that there is nothing yet at which to be unnecessarily alarmed. True, the times have affected property of this nature to some extent, but not nearly in proportion to what they have injured others. This property retains a vitality unknown to some; the demand for its produce being universal and everlasting, and it is not doomed to that crushing and continuous depression railway and other securities so often are subjected to.

With these remarks we dismiss the subject, hoping that before many more numbers of our paper are issued we shall be the herald of better prices, and that our late flourishing mining interests will again be in the position they so richly merit, and which conduce so much to the public good; for when they suffer, all suffer with them.

We recommend an attentive perusal of the statistical account of the PROVIDENCE TIN MINE (which will be found under the head of Mining Notabilia), as affording a very interesting and instructive proof of what perseverance in mining will accomplish. Sixteen years of continuous working, and an outlay of 140,000l., would, we think, have daunted many of the most stout-hearted adventurers. Such an example should teach us never to despair; it certainly looks like "hoping against hope." However, it appears their efforts have been crowned with brilliant success; the statement we know to be authentic and correct, therefore it ought not to be without its value. Facts like these speak more loudly in favour of Cornish mining than the most elaborate lecture or most eloquent praise. We are, of course, aware many such instances may be quoted; but at this juncture we consider the publication is invaluable, proving incontrovertibly the riches to be obtained if perseveringly pursued. Here we have a mine that has been of old, and was even by the present party about to be abandoned, and yet turned up such a trump. We know several mines are on the verge of being closed, not from any want of good indications in themselves, but from the "weariness of hope deferred, which maketh the heart sick." To such parties the fact will be a source of satisfaction, and may make them pause before they take this final, perhaps fatal, resolve. To others owning progressive mines it will afford cause for hope, that they too, by waiting a little longer, may still witness the "good time coming" to all it will be a stimulus to exertion, and an index of what mining really is, and a proof in point that will silence the miners' slanderers. We shall be glad to receive our correspondent's further remarks on this famous mine, as no doubt, after what has been advanced, they will be highly instructive. If our correspondent will favour us with a diagram of the peculiarities of the mineral veins and lodes he describes, we will endeavour to publish it. We feel assured that, by doing so, we shall be rendering our readers a service; as it is not every one who can

spare the time, or are willing, to descend a Cornish mine to view such matters, especially if a correct idea can be conveyed by a true and graphic description. Whilst stating the outlay to be the enormous sum of 140,000l., we must recollect 12,000l. only came out of the pockets of the adventurers, and that ought fairly to be called, and is, the capital of the company, who have been so richly rewarded for their patience, which has been their chief merit, and is so worthy of imitation.

In the total absence of letters from Australia on the present occasion, in consequence of their transmission from the *Emu* steamer to a packet boat in the Red Sea, we are confined to the information conveyed in the few newspapers which are to hand, and necessarily without that exclusive private communication which has enabled us to anticipate for our readers almost all important matters connected with these colonies. This fact is shown by the present advices, which are from Melbourne to Sept. 16, and from both Sydney and Adelaide to Sept. 11.

It will be remembered that in former remarks our correspondent's letter from Melbourne enabled us to declare that the report of the railway committee was a nonentity in a practical sense, and which would meet the fate of the resolutions of previous committees, which had produced no better result from their labours than the one which has recently closed after a deliberation of nine months. By the proceedings in the Legislature on Sept. 15, the day before the departure of the packet, we find that Mr. HAINES, the Chief Secretary—that is, the Premier—in answer to remarks from Dr. EVANS, expressed his opinion that “as to the railway report he considered it quite a superfluity—in point of fact, of no use;” to which Dr. EVANS equally agreed, and said it was practically of little value, and furnished but a very small modicum of information on the subject. The House was left in discussion as to the merits of the routes proposed by the select committee—namely, Melbourne to Sandhurst, and Geelong to Ballarat. Such was the proposition of the majority of the members who drew up the report; but it must be remembered that it was merely an expression of opinion, not a final decision, which necessarily is left for the Legislature generally to determine; and as popular opinion is evidently opposed to the plan suggested, it is clear that the expression of the Minister foretells the fate of the recommendation.

The *Melbourne Argus*, which is the *Times* of the colony of Victoria, dwells at some length upon this question. “The proposed lines,” says the writer in that journal, “are not those which would confer the greatest benefit on the greatest number of people; that on public grounds we ought to concentrate our energies on a central trunk line, from Melbourne to Ballarat, in the first instance. In addition to these reasons, there is one which should render us very cautious. Railways we must have, but we want experience; this can be gained with safety in the construction of a well chosen line, such as that from Melbourne to Ballarat, the merits of which are so superior.”

Public meetings had been held to draw up petitions in opposition to the report. One held at Bacchus Marsh was numerously attended, and the speakers generally expressed their full confidence that a line direct from Melbourne to Ballarat would be carried through, either by the Government or private enterprise, the latter of which was preferred; which the meeting, by resolution, bound themselves to support, and which the merchants of Melbourne and Ballarat were likewise pledged to secure.

The Crown Lands Bill had passed the lower House, after strenuous opposition on the part of the minority, but it was fully expected that in the Legislative Council the bill would be materially amended, to render it more congenial to public opinion.

The commercial position of affairs at Melbourne were not satisfactory. Business was depressed, and excessive stocks forced into the market. The yield of gold continued about the average of the past twelve months, and several fresh discoveries were reported.

The following departures of “gold ships” from Melbourne for Europe have taken place since the sailing of the *Royal Charter* on August 14:—the *Seringapatam*, August 15, with 12,183 ozs.; the *Essex*, Sept. 2, with 105,255 ozs.—which, with the amount of 525,918l. brought by the *Emu*, makes a total sum of about 995,668l. Various ships with precious metal, advised by the *Royal Charter*, are still overdue. The total amount of gold shipped since the commencement of 1857, including the shipments to the neighbouring colonies, had been 79 tons 1 cwt. 3 qrs. 20 lbs. 11 ozs. which, at 80s. per oz., gives the value of 7,636,602l. The receipts of gold by escort continued to be far in advance of those in the corresponding period in 1856. Ballarat gold sold on the fields at 80s. per oz., and other fields in proportion, but a reduction of 6d. per oz. expected. The new gold eld at Mount Ararat promised to be very successful. The population is estimated at from 40,000 to 50,000; and the second fortnightly escort, which had just arrived, is reported at 17,370 ounces. The heavy rains which have lately fallen on most of the older diggings have enabled the men more generally to realise on the stuff which has been accumulating around the puddling machines, the quartz crushers, and elsewhere, for many months past; and as they wash off, it is expected that the regular returns will show a steady and continuous increase.

An unhappy fatality seems to await the Australian overland mail service. The unfortunate disaster which has occurred to the *Emu* steamer, with the homeward mails of September from the different colonies, again throws the postal intercourse into irregularity; for it appears that she is rendered quite unfit to return with the October outward mail, and which must necessarily wait for the arrival of the *Sinla*, so that the October and November bags will leave Suez together, while it is equally possible that the missing September letters, per *Emu*, will come forward with the October advices, per *Sinla*, which will be due at Suez Nov. 23; and it is possible that telegraphic intelligence may be received next Thursday via Malta and Cagliari. It will be remembered that the *Emu* went out from England to take the place of the *Onida*, and, strange to say, she likewise, on her first postal trip between the Australian colonies and Suez, has been disabled, and is unseaworthy for the present service; so that until she is enabled to resume her position, or another steamer is dispatched from England to take her place, the service to and fro must be subject to disarrangement. We understand that one box left on board the *Emu*, supposed to contain newspapers, proves to be letters. The whole of the mails, with this fortunate exception, are with the *Arab* packet-boat, and amongst which are no less than 11,000 registered letters, the delay in the receipt of which, in these times of monetary pressure, may be of more than usual, if not of serious, consequence.

SIMILARITY OF PRODUCTION FROM DIFFERENT CAUSES.

BY EVAN HOPKINS, C.E., F.R.S.

Two medals of the same kind of metal may appear, to an ordinary observer, to have been produced by the same means; yet a practised, scrutinising, and microscopic eye will detect the difference between the one produced from melted metal, and cast into the mould, from the medallion formed by electro-precipitation within the same cast; the latter being far more perfect in the details than the former. In like manner, the golden nuggets mixed with quartz, the metallic silver and copper enclosed in the joints of quartz and other rocks, have a very different appearance to that of metal filtrated or poured into the cracks of stones in melting furnaces. In the one case, the rocks are found in their transparent and moist state, with all their fine angular points uninjured, and the metal receiving the impression of the minutest stria; whilst the other presents very different aspects to an experienced eye, however similar the two cases may appear to an ordinary observer.

The same, again, with slags. It often happens that the slags from furnaces, and those encrustations seen along the surface of some ferruginous rocks, are apparently so much alike, that superficial observers cannot distinguish the difference between the one and the other. Hence arises the common notion that they have been produced by the same agency—that is, by fire. Yet very slight examination, and the knowledge of what is constantly going on within and on the face of rocks, would show that the one had a beautiful mammillated and radiated structure, and presenting within totally different conditions to the slag produced by fire. These natural oxidating ferruginous masses may be seen forming somewhat rapidly on a large scale in India, Malacca, Banca, Java, Victoria, and many places in South America. The blistered iron ore is another example of natural production analogous to slag.

We often hear persons say that all hornblende rocks are mere ancient lava, and that this has been proved, because it has been found that this rock has changed the coal into coke where it is found in contact. I never saw a single instance where the so-called lava (the basalt and tondstone of the North) have converted the coal into coke. That this rock should

change the character of the coal at the point of contact is very natural—so will a steel knife, if left in an apple, make the latter black; but to say that this change is similar to that of burning coal and converting it into coke, is purely an assumption. It is well known that many of those things which excite in our organs, especially those of taste, a sensation of heat owe this property to chemical stimulants, and not at all to any fire. There are many chemical agents which, from their corroding, blackening, and dissolving or drying up the parts of some descriptions of bodies, and producing in them effects not generally unlike those produced by heat, are said in loose parlance to burn them; and this error has even become rooted into a prejudice by the fact that some of these agents are capable of becoming actually and truly hot during their action on moist substances. But we should be greatly deceived if we referred only to these occasional effects of intense chemical action as an indication of the presence of fire. We have only three primary divisions in nature—solid, fluid, and gaseous; we have no igneous liquids in a natural quiescent state, like the ocean—hot or melted matter is merely a temporary effect of chemical decomposition.

Again, the phenomena of cleavage planes have been sadly abused by eminent men. Attempts have been made to prove that the fine crystalline planes have been produced by mere pressure. It would be difficult to conceive how the fine roofing slate cleavages of North Wales, for instance, could be produced in vertical bands for so many miles through different rocks, by mere pressure. If the attempted imitation of cleavage planes by pressure in mud and sand is to be taken as an example, so will a brick indicate the mode by which crystals of felspar have been formed into rhomboids. It is much to be desired that those who enter into these subjects should have their minds a little more expanded by the study of nature as it is; not by merely hurried and short visits, but by prolonged and extensive investigations in many regions.

The planes of deposition have a very different aspect to the planes of cleavage from semi-crystallisation. The one will divide in rough tabular masses, whereas the other will split in one given direction, like the medullary planes and grain of a great trunk of tree—i. e., in longitudinal splinters. The schistose rocks have a fibrous as well as laminated structure, and that structure is found in one given direction; hence the fallacy of attributing the phenomena to the effects of pressure. The contortions and elongations of the crystals within the masses are like the knots in trees, subject to lateral, twisting, and longitudinal mechanical action; but that does not prove that the grain is produced from the same cause.

ON THE SANITARY CONDITION OF MINES, AND THE HEALTH OF MINERS.

Mr. HERBERT MACKWORTH, F.G.S., communicated some valuable information in a lecture at the Bristol Mining School. The object of these lectures is to present the subjects taught in the Mining School in a popular form, and at the same time to impart that practical and useful knowledge which, followed up in detail by the instruction of the mining master, would qualify those practical men who attended them to be fitting competitors for the annual certificates and other prizes. It should be made known in many districts that an annual examination would be held every summer for all working men at collieries who wished to be known as men of intelligence and ability.

The subject of this lecture was one that not only came constantly under the notice of working men, but more powerfully affected their welfare than, perhaps, any other circumstance with which underground labour had to contend. The conditions which pervade all mines were, that a miner excavated a tunnel or space before him sufficiently wide to allow him to work and progress in the cheapest manner. This excavation served for the extraction of the materials, the drainage of water, and the supply of air. In coal, and in some ironstone mines in England, it was the custom to ascend and descend the shafts by ropes and chains; in the other mines the miner has access to his working place by ladders. The effect on the health and lives of miners, by having to ascend many hundred yards of almost perpendicular ladders at the end of a day's work appeared to be very serious. Dr. Carlyon stated, that in order to judge of the extent of the heart's distress when the miner has ascended by ladders from a depth sometimes more than 200 fathoms, he should be seen emerging from the shaft on his getting, as it is technically termed, to grass, his heart beating as if ready to burst, his whole frame bedewed with sweat, and his strength ready to pass from the extreme of feverish excitement into the opposite state of perilous exhaustion. The pulse at this time was on an average double as quick as in the natural state, and the respiration at least quickened in the same proportion. Where men had to ascend and descend a furnace shaft, the unburnt coal from the furnace was injurious. No up-cast or furnace shaft ought to be used either for the egress and ingress of the workman nor the winding of material.

The condition of the passage along which the material is conveyed ought to be attended to, so as not to allow the accumulation of mud or any kind of filth whatever. In low seams, as in the Yorkshire and other districts, the position of the boys hurrying or carting was almost horizontal, the height through which they had to push their trams did not in many cases exceed 30 inches. Conceive the effect of the constrained attitude and laborious exertion in such a contracted space, and the faces of these boys within a few inches of pools of mud and water, in which were worked up the putrefactions and nuisances of years.

The testimony of a Yorkshire collier was to the point. “There was no doubt but that their health was very much affected by working in the pit very young, for they have to work without waistcoat, handkerchief, or trousers. They have their work set, and they are bound to perform their full task, so, of course, the harder they work the sooner they get done. This causes a kind of rivalry, or competition, which causes them to work so very hard that they are in a continual state of fermentation and perspiration. The roads are very wet in some of the pits. The boys are continually wet on their feet, sometimes plastered up to the knees in dirt and sludge. What with being in a state of agitation and perspiration, and long exposed to a very strong and impure atmosphere, with almost a naked skin, in such a state they absorb the impure air through the pores of the skin, and continually breathing this kind of air affects the lungs and liver, so that colliers are very subject to lung and liver complaints; and with being continually wet on their feet and legs, they have inflammation in those parts, and in their knees; boils and rheumatism in all parts of their body, but more particularly in their lower parts, and in all their different stages and degrees.”

The oxygen of the atmosphere inhaled produced a slow combustion, and the oxidation in the process of breathing causes a mild and genial warmth throughout the frame. All vital activity is derived from the mutual action of the oxygen and food. The 14 ozs. of carbon which are burnt into carbonic acid daily must be taken in food. A horse burns 97 ozs. daily, consuming for this purpose 13 lbs. 3 ozs. of oxygen. The food, therefore, should be in direct ratio with the supply of oxygen. These conditions, joined with a due proportion of sleep, enable a man to perform a daily task equivalent to carrying 30 lbs. a distance of 72,000 feet. Any causes which disturb this balance produce a diminution in the average amount of work performed. According to experiments by Dr. Wehrle, the oxygen consumed by a candle per minute amounts to 16·6 cubic inches, and the carbonic acid gas formed to 4·2. When the quantity of oxygen is reduced from 21 per cent. to 18 or 16, an ordinary miner's light is extinguished; an Argand lamp will burn until the proportion is reduced to 14 per cent. The average of 18 samples of air, taken from different mines in Cornwall, was—Oxygen, 17·067 per cent.; nitrogen, 82·848; carbonic acid, 0·085. It has been approximately determined that a deficiency of oxygen of 10 per cent., or an excess of carbonic acid gas amounting to 8 per cent., will quickly produce stupor, and eventually death. The lecturer had frequently met with instances in mines where the men were obliged to work in the dark, from want of ventilation, some being pointed out to him who were particularly good hands at it; and he had occasionally to spend the night in parts of mines where the candles would only keep alight by being tied two or three together, and held horizontally. Some time ago, the manager of a colliery was killed by remaining ten minutes in a place where the men had at last refused to work.

Various other sources of ill-health to the miner were shown by Mr. Mackworth, and suggestions for their removal, to a great degree, given. The occupation of the miner was not necessarily deleterious to health. Equal, if not greater, caution and care were necessary to remove nuisances and other causes of disease in the mine to what was exercised by the Board of Health in towns and villages. An intelligent mine manager might be known by the attention he gave to the health of the miner, and his concern for their moral and intellectual welfare.

THE MINING AND INDUSTRIAL INTERESTS OF CORNWALL.

[FROM OUR CORRESPONDENT IN WEST CORNWALL.]

Nov. 19.—The copper smelters last week lowered the standard much more than seems to be necessary, even in these times of monetary difficulties, trade embarrassment, and depression. The copper trade does not appear to be in any great difficulty, inasmuch as the smelters are still enabled to keep up the price of cake copper to the consumer at 121l. 10s. per ton. For the last eleven weeks cake copper has been maintained at that price, and yet during the past nine weeks the smelters have been reducing the price paid for ores to the miners, and, therefore, increasing their own profits. The reduction last week was almost beyond precedent in its amount as compared with the previous week's sale; and during the last two months the standard has fallen to the following extent:—

	Tons.	Standard.	Prod.	Price per ton.
Sept. 10.	4248	£147 15	6½	£8 17 0
Nov. 12.	4703	124 11	6¼	4 17 6

Between these two dates (allowing for the difference of produce between 6½ and 6¼) the standard has fallen 26l., and the price per ton of ore at least 17. 10s. The ores which the smelters bought at Rodruth last week, 4703 tons, if they had been sold two months ago would have made 7054l. more than they did last week. The smelters give that much less to the miners, whilst they keep up the price to consumers the same as it was two months ago. The ores bought last week will probably be smelted and sold as fine copper in from two to three months from the present time. If, then, the smelters keep up the price of fine copper until that period (and it is rather likely to be higher at that time than lower) they will pocket 7054l. upon last week's ticketing, which they would have not obtained had they not thrown down the standard. The miners lose that amount, and the smelters gain it; the consumers profit nothing. The price given by the smelters for ore copper last week was 79l. 15s. per ton; the selling price of cake copper is 121l. 10s. per ton; so that between the buying and the selling price the smelters have now a difference of no less than 41l. 15s. per ton, leaving them, after paying for conveyance to Swansea and smelting expenses, an enormous profit upon their purchases. It is not wonderful that the smelters get rich; but is it not surprising that there is not more competition in such a lucrative business? Surely it will not be long, when the money market gets in a better state, before capitalists will see that another company of copper smelters is very much demanded, and likely to prosper.

From Oct. 21 to Nov. 12, the price of English block tin fell 20l. per ton, and it is reported in Cornwall that a further fall of 6l. per ton has taken place, making a reduction of 26l. per ton in less than a month. Such a decline is unprecedented, and, if long continued, will ruin many of the tin mines, and probably stop the dividends of the best of them. Take, for instance, Dolcoath, selling about 50 tons of black tin per month. The fall of 26l. per ton on block tin (reckoning tin ore as containing 70 per cent. of metal, which is about the average of the county) will make 18l. 4s. per ton on black tin, so that the fall will reduce the profits on 100 tons (Dolcoath's two-monthly sale) to the amount of 1820l. Dolcoath paid on Oct. 12 a dividend of 8l. per share, or 1432l.; so that the loss now on a two-monthly sale will exceed the dividend then paid for two months. Dolcoath has large reserves, and can increase sales to meet expenditure, but what will be the position of many other mines in less favourable circumstances? The hope, however, is that this position of things will not long continue. When the crisis is over, and trade returns to its accustomed channels, the price of tin is sure to rapidly advance; and would it not be better for shareholders in tin mines to draw from their pockets to meet the present emergency, and stock their tin, than to sell it at the present great sacrifice? Curtail all expenses, stop exploration, and stock their tin until they can get for it something like its value. If they sell it now to the smelters, the latter will stock it, and make immense profits when trade revives and prices advance.

There is very little doing in mining shares; still, where a mine looks well, purchasers are not long wanting. The Chacewater people are very sanguine about the prospects of Great Wheel Busy. If the mines turn out as they anticipate, it will be an excellent thing for the population of the neighbourhood. Great Wheel Alfred is said to be looking more favourable. West Alfred continues to look promising for a good mine. East Basset continues to hold good both on the copper and tin lode. An improvement in West Grenville has attracted attention to that mine. Rosewarne Consols is looking very promising. At West Rosewarne the north and south lodes have come together, and are likely to make ore. At South Seton a 50-in. engine has been set to work. Alfred Consols continues to look well, yet the price of shares has declined. Ballewidden is likely to be “knocked,” principally in consequence of the great fall in the price of tin. Very little is doing in dividend copper mines, and shares generally are low. It is remarked, that although cake copper is now 121l. 10s. per ton, the price of copper ore was last week 16s. per ton lower than it was in the corresponding week of last year, when cake copper was only 110l. per ton. This does not look fair on the part of the smelters towards the miners.

At the Royal Institution of Cornwall annual meeting, Sir Charles Lemon resigned the office of president, and Mr. Tweedy, banker, of Truro, was elected in his place. Amongst the presents to the Museum, the society received a series of specimens of nickel, from Captain Williams, of St. Austell Consols, and also a paper on the subject. The council of the society stated that they referred with peculiar pleasure to this paper, as an evidence of the very important information that would be obtained, could the agents of our mines be induced to follow the example thus set them; the council recommended Capt. Williams for election as an associate. The council also referred to a statistical paper which had been contributed to the Royal Cornwall Polytechnic Society, by Mr. Couch, of Penzance, stating the results of his enquiries with regard to the extent to which the lives of the mining population in St. Just, in Penwith, are affected and shortened by their occupation. The council remarked:—“It is now many years ago since a very strong impression was made on this country by a realisation of the extent to which the life of the Cornish miner was shortened by his occupation, and this institution has not failed to do what it could in the cause of humanity, by throwing further light on the subject from time to time. It is feared, however, that the evil is little mitigated; and there is reason to apprehend that its continuance, by deteriorating constitutional vigour in successive generations, may lead to still increasing mortality, a mortality involving females and children, as well as those who work underground, and to a stunted and ill-developed condition of a large section of the people.” Amongst the papers contributed to the society, and read at the meeting, was one on subterranean temperature observed at the Chanarcillo Mines, in Chili, by Mr. William Jory Henwood, F.R.S., F.G.S., Member of the Geological Society of France, &c., &c. This paper, with the discussion it occasioned, was of considerable interest, and I shall probably advert to it on a future occasion.

In the Stannaries Court, last week, an action was brought by Wheal Trelawny Mine against Wheal Trebane. It was a suit in equity to compel the latter mine to pay water-charges in consideration of benefit received from the engines of the former mine. These two mines are in the neighbourhood of Liskeard, Trelawny sett bounds Trebane on the north, east, and south. The main, or engine lode, runs nearly north and south. Trelawny has a 70-in. engine in the north part of the sett, and a 50-in. in the south. Trebane, a small sett lying between these two engines, was of course drained by them to a considerable extent, especially by the north engine. Trelawny commenced working in 1844, about two years before Trebane, and the latter mine was enabled to sink dry to a 30 fm. level, and to raise 20,000l. of silver-lead ore before putting up an engine. There had been a previous agreement or two on the part of Trebane to pay Trelawny for the use of water for dressing, and at length also for flat-roads, which were extended from Trelawny engine to Trebane shaft for pumping. Subsequently, Trebane erected a 22-in. horizontal engine for pumping and drawing; but finding this insufficient, a 45-in. engine for pumping was afterwards erected. The agreement between the two mines for dressing water and water charges, previously paid for by Trebane, was then terminated; but subsequently, in Sept., 1855, it was found necessary by Trebane to enter into a fresh agreement, and Capt. Charles Thomas, of Dolcoath, was nominated arbitrator by both parties, to say what Trebane should pay. Between Trelawny north shaft and Trebane there was a slide in Trelawny sett, at about right angles with the course of the lode, which acted as a dam against the water in North Trelawny; but when the slide was cut through, by driving on the lode, the ground being very porous between North Trelawny and Trebane, the water from the former mine, and from about the slide, where it was very wet, was in danger of running into Trebane, which was deeper than North Trelawny. Accordingly, Capt. Charles Thomas awarded that Trebane should pay Trelawny 15l. per month for twelve months, from Oct. 1, 1855, provided Trelawny agents would drive their level in such a manner that the water from the lode or country north of the slide should pass into Trelawny north shaft, and not into Trebane Mine. This was agreed to by both parties, and the payments were made by Trebane for twelve months and one month over—Oct., 1856. Not only so, but on examination of Trebane cost-book, it was found that three months over the twelve had been charged therein—Oct., Nov., and Dec. The defence against the suit (besides some technical points) was that the agreement terminated at the end of twelve months, and that Trebane was not liable afterwards, the month over (Oct.) having been paid for inadvertently. Also, that Trebane did not in reality derive any benefit from Trelawny north engine. On this point there was a conflict of evidence. Trebane agents stated that they could very well keep their own water with the 45-in.

engine. Trellawny agents stated, that if they had driven their levels in the usual manner, and not at a great incline towards Trellawny north shaft, Trellawny would have been drowned on the slide being cut through at the different levels. It also appeared that Trellawny Mine had ceased working in July last, that Trellawny had demanded payment for water-charges after the previous October, and now sued Trellawny for 165*l.* on account of those charges. The Vice-Warden, after hearing the evidence and arguments on both sides, expressed his opinion that the contract (as drawn up by Capt. Charles Thomas) terminated in the twelve months, but that the plaintiffs might have a claim on the ground of *quantum meruit*, and he considered that defendants, by the entries in their cost-book, showed that they thought they ought to pay for the months of Nov. and Dec. He recommended that the case should be settled without a formal judgment from the Court, and the advocates promised to write to their clients on the subject; and there the matter now rests.

REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

[FROM OUR CORRESPONDENT IN CHESTERFIELD.]

Nov. 19.—The numerous failures reported during the week have had a depressing influence on the iron trade. The works in this district at present are fully employed; but there is a scarcity of orders, and complaints of underselling are more prevalent. The demand for pig-iron is flat, and prices are lower.

The Coal Trade is brisk, owing to the demand for winter, and prices are regularly maintained. A fearful accident occurred at Staveley, on Sunday night, by the suffocation of twelve men, in one of the collieries at Mr. Barrow's works. It appears that a fire took place in the lamp-room of the pit, and as soon as it was discovered information was given to Mr. Cooper, the resident under-lower, who called together twelve of the most experienced colliers at the works. They went down the pit, and it is said that Mr. Cooper ordered one of the party to open an air-door, for the purpose of checking the air on the fire; no sooner had the door been opened, than the course of the ventilation was reversed, and the smoke and foul air was driven upon the party, and they were suffocated before they could be rescued. Messrs. Woodhouse and Jeffcock, mining engineers, and Mr. Hedley, the Government Inspector, were telegraphed for, and they arrived at Staveley on Sunday afternoon, and proceeded to take measures for extinguishing the fire and recovering the bodies. They ordered the erection of several stoppings, which confined the air into one part of the pit. About four o'clock on Monday morning, eight out of the twelve bodies were recovered, but life had been extinct some time. The fire in the pit, which had ignited the coal, was raging so furiously that it was impossible to get to them, and Mr. Woodhouse and Mr. Hedley held a consultation, and determined upon putting a strong wall across the main incline, so as to confine the air into that part of the pit where the fire was, and by this means to choke it out. Four or five out of the twelve suffocated were managers at the works, and one was Mr. John Cooper, brother to Mr. Daniel Cooper, the resident under-lower. The Mill Town Mining Company was held to day, at the Greyhound Inn, Mill Town, kept by Mr. Loft. Mr. C. Binns in the chair. The secretary read a statement of the accounts, which showed an available balance of 168*l.* after the payment of all expenses. On Wednesday last there was a sale of ore amounting to 25 tons, the produce of the last four weeks' work of a portion only of the miners employed at the mine. The agent presented a very satisfactory report of the prospects of the mine. The company will now have a balance of about 400*l.* after paying all expenses, and they passed a resolution to place that sum to the general account, and not to pay a dividend this month. The profit during the last half-year (not including Wednesday's sale) amounted to 370*l.* 7*s.* 9*d.* The mine is doing exceedingly well, and the profits are likely to be doubled during the next month.

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

[FROM OUR CORRESPONDENT IN SOUTH WALES.]

Nov. 18.—We have still to report unfavourably of the condition of our Iron and Coal trades, the former especially. Fresh disasters have marked the general commercial affairs of the week, and a strong depression is consequently communicated to the trade of these districts. The dearthness of money is not the least of the difficulties under which ironmasters are at present struggling. But the event which has caused the greatest uneasiness here is undoubtedly the stoppage of the Wolverhampton and South Staffordshire Bank, and the incidental failure of the six iron firms. We have had occasion in previous letters to refer to the latter, and the connection of the trade in Wales with that of Staffordshire, and any loss there must, we fear, infallibly create one here. It is known that several of our firms are concerned in the failures made known this week, but we trust that they are not so seriously compromised as to necessitate a stoppage. Certain it is, however, that a want of confidence is more and more shown, and the iron trade throughout Wales generally is far more gloomy this week than we have yet had to record. There seems to be a feeling that no dependence can be placed on either home or foreign orders, while the great source of our trade—America—is altogether stopped. At present, we are, fortunately, enabled to confine our remarks to the general aspect of affairs, and have not as yet been placed under the necessity of referring to individual or particular instances of loss or ruin in South Wales.

Bad accounts reach us from Hirwaun relative to the iron trade there. The iron-works belonging to Mr. P. Crawshaw have not been in the most flourishing condition for some time. It is not long ago that, in consequence of a misunderstanding between master and men, the furnaces were all blown out, and that affair was not satisfactorily arranged without inconvenience on one side and loss on the other. Now the news is still more discouraging. The reduction in wages was badly received, and so much dissatisfaction was expressed that Mr. Crawshaw had several interviews with his men, with a view to bring about a more peaceable state of things, but he did not succeed in his endeavours. Fears were entertained by some that the works would be entirely stopped, and on Friday last a notice appeared dismissing all the miners, puddlers, patchmen, &c., numbering altogether upwards of 500 men, many of whom have wives and families, and must be reduced to absolute want unless some unexpected good should turn up. We should be glad to record next week more satisfactory intelligence from Hirwaun, and sincerely trust that some plan will be devised by which the works may be carried on as before.

We gave some particulars in our last of a turn-out of colliers in the Church Colliery, Rhondda Valley, and stated that one man was sentenced to a month's imprisonment for leaving work, the others being discharged upon promising to return to their labour. After they left the police court, however, they refused to do so, and were consequently again brought up on Saturday last. One of the men resolutely declared his determination not to return, and he was sentenced to a month's imprisonment. The solicitor for the prosecution asked the magistrates to remand the others, in the hope that they would repent of their folly, and this application was acceded to.

While in the district, we were referred once more to the disputed state of Aberdare, in relation to the Chairman of the Local Board of Health, Mr. Pothergill. It will be remembered that a charge was recently brought against him of tampering with certain voting papers used at the last election. He was proved to be innocent, but since then the wound has been reopened—fresh prosecutions are to be entered into, and the parish is in anything but a peaceable state. Two accidents have occurred here since we last wrote, each proving fatal to a collier. One died from being jammed between two trams. Among other accidents which have taken place we may mention the following additions to our constantly large list of casualties:—At Rhymney, on Saturday, David Thomas, collier, was crushed very severely by a fall of coal in the Cwm pit; his legs were broken, but it is thought he may survive his injuries. At Pontnewydd a furnace blew up on Friday, frightfully wounding a man engaged at it. He is, likewise, recovering. At Dowlais, another collier met his death by a fall of "bind."

In the neighbourhood of Pontypool, Blaenavon, &c., many of the hands are still receiving three days' employ in the week, in consequence of the slackness of trade. This, in conjunction with the reduction in wages, has sadly altered the state of affairs. On Monday proceedings were taken in the Court of Queen's Bench to compel four magistrates to hear and determine an information laid by Mr. Henry Mackworth, Inspector of Mines, for this district, against John Benbow, manager of a coal mine at Nant-y-Glo. The Bench had refused to hear Mr. Mackworth's complaint on the ground that he ought to have given notice of the violation of the rules with which the accused was charged. A mandamus was granted.

The half-yearly meeting of the Monmouthshire Railway and Canal Company was held on Wednesday, at the dock offices in Newport. A dividend of 2*l.* 10*s.* on each of the 100*l.* shares, and of 12*s.* 6*d.* upon the 25*l.* shares, were declared for the half-year.

STOCK, MINING, AND RAILWAY SHARES IN IRELAND.

[FROM OUR CORRESPONDENT IN DUBLIN.]

Nov. 19.—There has been but little change in prices this week, and the fluctuations unimportant. In shares business has been more active, and at somewhat advanced prices. Mining shares also were more dealt in, and those of the General Mining Company for Ireland were quoted at 1*l.* 10*s.* the day before yesterday; at this, however, only a few changed hands, as they were unsaleable at the commencement of the week; this change was owing to discoveries of some value which were made in three different portions of the property. These improvements I had myself the pleasure of witnessing, and have brought with me very beautiful specimens of the new ground; and in next week's Journal I will give a description of my visit: one thing, however, I cannot delay noticing, and that is the kindness with which I was treated by the active and experienced agent at the mines, Capt. King. He spared no trouble in showing me the mine, and gave every information to enable me to form an opinion of the value of the property; and from what I have seen I am fully of opinion that the tide has turned, and that the property has been rendered by his intelligence and perseverance a valuable one, owing to the measures he has taken to develop it.

The following are the latest quotations, as usual:—Consols, 88½; New Three per Cents., 88½; Hibernian Bank, 32½; Royal Bank, 20½; City of Dublin Steam, 76; Consumers' Gas Company, 7½; General Mining Company, 1½; Mining Company of Ireland, 15; Wicklow Copper, 32½; Ballymena Railway, 49½; Cork and Passage, 12; Belfast Junction, 41; Dublin and Wicklow, 43; Great Southern and Western, 97; Midland Great Western, 47½; Waterford and Kilkenny, 3; Waterford and Limerick, 18½.

Within the last few days I had the opportunity of seeing the Milltown Silver-Led Mine, Tuilla, Co. Clare, and I have found it to be everything I was previously led to expect; indeed, a most valuable property. It is situated about 15 miles from Limerick, and 1½ miles from the village of Tuilla, and the mine has been opened adjacent to the road side. The opening is similar to that of a large quarry, and after descending about half-way down you find the lead cropping out of the rock, which is pure carbonate of lime in large solid cubes. From this pit very large quantities of lead and blende have been taken; the lead appears in strings, or veins, dipping down, and latterly a shaft has been sunk to a depth of about 15 fms. from surface, and there the lode has been cut, and at present looks well. A very excellent working vein drains this mine of any water which impedes progress. Under the superintendence of the intelligent manager, Mr. Flynn, a substantially-built mine has been erected, and is returning a profit of fully 40 per cent., according to his calculation; and, upon making the necessary enquiries, I find that the mine could be delivered at the mine, were a little capital employed, at 10*s.* per ton cheaper than at present; this would make a very important difference in favour of the property from the kiln. I was much struck by the surface indications, the deposits being generally shallow in limestone. The property could be worked extensively at little cost, and that which principally favours the undertaking is, that, without farther dis-

coveries, the cost of opening up the property would certainly be returned, or nearly so, in profit, while a rich deposit, such as is confidently expected, and was the case with its neighbour, the Ballyhenry Mine, would produce an immense return for, in that case, the fortunate adventurer. As this property is likely to be soon brought out under a new title, I will take some other opportunity of referring to it more extensively and minutely.

The official manager winding-up the Knockatrellane Mining Company has sought to make the directors liable for certain sums which they appropriated to themselves as remuneration for their services, and the Master has agreed in this view upon the evidence tendered.

INDUSTRIAL PROGRESS ON THE CONTINENT.

[FROM OUR PARIS CORRESPONDENT.]

Nov. 19.—The crisis, which happily appears to be subsiding in England, has, so far as I can gather, been but slightly felt here, while anything approaching to panic has been unknown. The depreciation that has occurred in the Government and other stocks is altogether insignificant, when the condition of the chief European and American markets is taken into consideration. The number of bankruptcies is not unusual, and those that have taken place present no extraordinary features. Without doubt there must have been considerable difficulty and inconvenience experienced by the commercial community, but they have not led to any pecuniary embarrassments generally. The metal markets in different parts of the country do not seem to have suffered from the effects of the financial situation. In Champagne, pigs are unsaleable, and no transaction has taken place in this class of goods for the last fortnight. This calm, as French journals euphemistically term it, may probably be due to the existing high rate of interest, but the lengthened stagnation has not abruptly terminated in commotion or perturbation. The actual necessities of commerce would induce purchasers to make their appearance, and it is only natural that they should postpone buying until money is cheaper, or supplies can no longer be put off. The nominal price is 155*fr.* per ton. Wrought irons are in demand, and works in full activity. Buyers have stood aloof so long that the stocks must be brought very low, if not exhausted, to judge from the rapidity and urgency with which orders are given. Rails are firm, at 421 to 340 *fr.*; hammered iron immovable, at 370 *fr.*. So true is it that good fortune is never wholly good, that manufacturers are tantalized in the midst of abundant orders with an impossibility of taking full advantage of them. Water-power is far short of what it is in ordinary times. Rails are quoted at the old prices—300 to 400 *fr.* for No. 21, and 400 to 410 *fr.* for No. 20. Chains stand, mixed numbers, at 720 *fr.*. A fall was anticipated in the price of irons at the last meeting of the Châlons masters, but which, nevertheless, did not take place, except in the Moloy irons; they fell the price of the irons in the Loire district are stated to be overstocked with rails, and the present is regarded as a favourable opportunity for speculators to buy, which would be quite a good-sold to the holders. Other metals are quoted on the Paris market as follows:—Copper: Russian, 329 to 330 *fr.*; Chili, 280 to 285 *fr.*; Lake Superior, 307 to 310 *fr.*; Australian, 315 *fr.*; Corocoro, 310 to 315 *fr.*; sheets (red), 240 *fr.*; ditto (yellow metal), 310 *fr.* per 100 kilos, or 2 cwt. 15*lb.*; Banca, 3400 *fr.*; English, 3500 *fr.* per ton. Lead: French, 650 *fr.*; Spanish, 660 *fr.*; sheets, 780 *fr.*; Zinc: Silesian spelter, 750 *fr.*; Vieille Montagne, 830 *fr.*; sheet, 950 to 1000 *fr.* per ton.

The following are the Customs returns for last month, and for the past ten months of the year:—

Name.	Imported.	In bond.	Customs dues.	Total imported.	Total dues.
STEEL—bars—m.q.	824	—	Fr. 15,991	m.q. 9,977	Fr. 279,570
COPPER—English	6,277	—	14,079	—	45,470
Other countries	7,544	—	—	—	49,914
Tin	3,359	—	8,303	—	46,345
IRON—m.q.	37,742	—	21,729	395,572	564,192
Pigs, English	47,334	—	—	705,985	—
Belgian	22,641	—	271,412	221,763	3,312,058
Other countries	3,603	—	—	102,292	—
LEAD—m.q.	18,265	—	66,725	310,023	1,119,625
ZINC—Belgium	2,893	—	—	27,278	—
Hanseatic Towns	3,690	—	4,735	31,414	43,652
Other countries	25,486	—	—	137,535	—
NICKEL—m.q.	250	—	609	—	45,499
NITRATE OF SODA	9,927	—	10,331	99,943	108,126
COAL—Belgian	3,303,965	—	—	19,987,373	—
English	1,013,195	—	5,993,930	10,884,573	6,993,930
Zollverein	634,443	—	—	5,666,926	—
Other countries	7,727	—	—	99,060	—
SILVER—bar, &c.—hectg.	344,132	—	1,290	htg. 3,707,882	8,437
GOLD—ditto	195,305	—	12,261	1,635,429	262,362

The exports of objects likely to interest your readers during the same period have been—

Name.	Exported in Oct.	Total for year.
Machinery, value	Fr. 890,756	8,565,860
Australian ores	hectgms. 2,606,604	20,028,587
Silver	—	24,537
Gold	—	6,696
Porcelain	—	48,713
Glass	—	22,273

GOVERNMENT SCHOOL OF MINES.

On Friday, Dr. PERCY proceeded to give the details of the Swansea method of "Copper Smelting." The details of the process differ in each works, but in every case it is substantially the same. He described the process as practised at the Hafod Works, Swansea, in 1841, with the smallest number of operations (6), which can only be done when the smelter has at command a sufficient quantity of Australian ores.

Process 1—Calcination. This is an imperfect roasting, effected in a large, flat-bedded, low-roofed, reverberatory furnace, which was here described with diagrams. From 3 to 3½ tons of ore are distributed evenly over the bed of the furnace. During the first part of the operation great attention is required on the part of the workmen: the temperature must not be too high, or "clotting" will take place, and the operation consequently be impeded. Afterwards, the temperature is gradually raised: the condition to be desired is the highest temperature below that point at which the ore will clot or fuse. The time varies from 12 to 24 hours, according to the nature of the ore, &c. The effect of the calcination is to expel a large amount of sulphur, chiefly as sulphuric acid, and to convert another portion of the sulphur into sulphuric acid, under the influence of the oxides of iron and copper present. By this roasting it is not desired to expel the whole of the sulphur: enough is left in the ore to form a matte with the copper and iron, corresponding in composition to pure copper pyrites, about 24 per cent. of copper.

Process 2—Fusion. The calcined ore is fused with "metal slag," a silicate of iron containing some copper. Products, "coarse metal" and "ore furnace slag." The furnace and mode of forming its bed were here fully described. The charge (from 1 to 1½ ton of calcined ore and metal slag) is introduced, and when well melted, the slag is skimmed off through the end door of the furnace. A second charge is then introduced, and after perfect fusion, the slag is again skimmed off: this is repeated until as much coarse metal is obtained as the bed will conveniently hold. The coarse metal is now run into a pit containing water, to granulate it; at the bottom of the pit is a large sieve, in which the metal collects: the sieve is connected with an apparatus, by which it can be raised and lowered. In this operation all the silica and earthy bases are separated in the slag, which is examined for "shots," and, if clean, thrown away.

Process 3—Calcination of the coarse metal. The granulated coarse metal is calcined like the ore in the first process, in a similar furnace. Charge, 3 to 3½ tons; time, 24 to 36 hours.

Process 4—Fusion of the calcined coarse metal. The calcined granulated coarse metal is fused with "coarse metal" and Australian ores. These slag and Australian ores may be considered as so much oxide of copper put in. Products, "metal," which in this case is "white metal," having nearly the composition of disulphide of copper, and "metal slag." The slag is skimmed off, and the metal cast into sand-beds. When the smelter has not at command a sufficient quantity of Australian ores, he will obtain "blue metal," which will necessitate another calcination and fusion to convert it into white metal.

Process 5—Roasting. In different works this operation is conducted in a somewhat different manner. The "metal" is heated at such a temperature as to require six to eight hours to roast; during which time air is allowed to flow freely over it from openings in the side of the furnace. The surface of the metal now presents the appearance of ebullition, due to the evolution of sulphurous acid from the reaction between dioxide and disulphide of copper, &c. The temperature of the furnace is now lowered, so as to allow the metal to become solid; during this cooling the metal passes through a pasty state, whilst sulphurous acid is continued to be evolved. The surface is thereby thrown up into little craters and cones, several inches high, or, in technical language, the "metal rises." By this process of rising much sulphur is evolved, doubtless due to the greater extent of surface exposed to the air. After the metal has become solid, the doors are closed, the temperature raised, and the metal remelted; it is then tapped off into sand-beds. Products, "blister copper," which is the exact equivalent of the German "black copper," containing about 95 per cent. of copper; and "roaster slag." This slag is skimmed off twice during the process—1, after the first fusion; 2, immediately before tapping.

Process 6—Refining. From 6 to 8 tons of blister copper are melted under conditions most favourable to oxidation, and in a melted state exposed to the action of the air for a long time. Oxidation takes place to a great extent; a slag—"refinery slag"—is obtained, which is very rich in oxide of copper, combined with silica. The silica is obtained partly from the sand adhering to the blister copper, and partly from the materials of the furnace. The object of this roasting is to remove the last traces of iron and sulphur. In order to do this, it is necessary to sacrifice (temporarily) a quantity of copper; but this copper is regained in working the slags over in No. 4 process. The time required, including the subsequent "poling" and "lading," is about 16 hours. The products are, refinery slag, which is now skimmed off, and "dry copper" (copper saturated with dioxide). It is brittle, and unfit for the purposes of the manufacturer.

Anthraxite is now thrown on to the surface of the melted metal; after a time it is skimmed off, and a long pole of green wood is thrust into the copper, and kept there by propping up the end outside the furnace. A violent evolution of gas takes place, by which the copper is splashed about in all directions, and the dioxide reduced. The copper is tested from time to time as to its malleability, by taking out a small piece in a ladle, bending it backwards and forwards in a vice, beating out a small ingot with sledge hammers, nicking a piece on one side, and bending it double to observe the fracture, which, when it has arrived at its maximum of toughness, is very characteristic—finely silky. When the copper has arrived at its proper degree of toughness, it is ladled out into flat ingot moulds, and these ingots are known as "copper cakes." If the operation of poling be continued too long, the copper again becomes brittle, and in this state it is called "over-poled"; this brittleness is due to a different cause than that of dry copper. Over-poled copper can easily be rectified by removing the anthracite from the surface, and allowing oxidation again to take place to a certain extent.

Ingots of copper, in the three stages of "dry," "tough pitch," and "over-poled," present the following characteristics:—Dry copper: Fracture uneven, minutely granular, no appearance of fibre. The changes to be noticed here—colour, purplish red; a long, very fine, fibrous line along the surface of the ingot. Tough pitch: Fracture even; of a salmon red colour; surface of the ingot flat. Over-poled: Fracture coarsely fibrous; colour more or less orange; a longitudinal ridge passes along the surface of

the ingot. When copper is intended for rolling, it is found necessary to add a small proportion of lead, especially when antimony is present.

The chemistry of the process: Le Play has examined carefully the chemical changes which take place in this process (see "Annal. des Mines" for 1848). He was careful not to submit to examination any more specimens taken haphazard; he watched daily the progress of the operations upon the same sample of ore, and he took the greatest care to obtain fair averages.

1. Calcination.—The chemical agents employed in this process are—ore, and the oxygen of the air. Le Play has given the following analyses of fair average samples of the ore, before and after calcination:—

	Raw ore.	Calcined ore.
Dioxide of copper	0.4	5.4
Copper pyrites	22.7	11.2
Iron pyrites	22.4	11.2
Various metallic sulphides	1.0	0.6
Sesquioxide of iron	0.6	11.7
Various oxides	0.3	79.1
Quartz and silica	33.3	34.3
Earthy bases	2.0	2.0
Sulphuric acid combined	0.5	0.5
Water and carbonic acid	0.5	0.5
Oxygen of the air consumed	13.8	—
Sulphurous acid evolved	—	31.4
Water and carbonic acid	—	0.5
Total	100.0	100.0

Nearly one-half of the copper and iron pyrites has been decomposed, and a large quantity of sulphurous acid evolved. The reduction in weight was found to be from 7 to 8 per cent.; the diminution of the sulphur nearly 50 per cent.; the sulphur was evolved in three states—as free sulphur, sulphurous acid, and sulphuric acid. The sulphurous acid forms 21 per cent. of the total weight of the products, fixed and volatile, or 23 per cent. of the weight of the ore submitted; the sulphur contained in this gas is 13 per cent. of the weight of the ore. During the whole of the smelting process, 56 per cent. of sulphurous acid, and 23 per cent. of sulphur, of the weight of the ore, are expelled into the air. Le Play estimated that, at Swansea, in 1848, daily 188 tons of sulphurous acid escaped into the air. He estimated the annual value of the sulphur lost at 200,000*l.*

The lecture delivered by Dr. PERCY, on Monday, was a continuation of "Copper Smelting." In alluding to the labours of Mr. Napier in this branch of metallurgy, he stated that this gentleman had paid great attention to the subject. Some experiments which he had made were on some of the ores from Cuba. This had been stirred and samples taken out every hour; these consisted of copper, iron, sulphur, and silica, and for these they were tested. It was stated that these were fair samples, but from the results he had very great doubts on the subject. In them were three fixed ingredients—copper, iron, and sulphur—and the relations between them ought to be the same. On looking at the appended table, they would find there was less sulphur at the end of six than 12 hours:—

Ore when put in.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Copper	12.3	13.0	12.2	12.2	13.0	12.3	13.8	12.6	12.6	12.5	13.2	13.8
Iron	33.7	30.9	24.4	32.8	28.7	31.3	33.1	30.6	30.6	27.6	34.3	40.3
Sulphur	31.1	28.3	23.6	18.0	29.2	26.4	12.2	18.1	20.0	15.9	19.8	17.5
Silica	24.0	28.0	32.0	28.0	26.0	28.0	24.0	32.0	30.0	30.8	33.0	40.2

The lecturer then quoted from Mr. Napier's published paper on Copper Smelting, and stated, as the copper, iron, and silica were fixed, they must be in the same ratio to each other. If they compared this with the silica, they found the ore as put in would be 100 to 51; in the first hour, 100 to 46; in the second, 100 to 35; fourth, 100 to 30; sixth, 100 to 39; eighth, 100 to 45; twelfth, 100 to 30. On referring to the small diagram of the calciner before them, which had been furnished by Mr. Keates, they would observe at the doors there were protuberances, or bows, which allowed the metal to be freely and equally calcined, this labour being most important in this operation. They would observe the bridge had a channel through for the circulation of the gas, the most necessary element. This furnace was built upon three arches instead of one, as in the larger diagram before them; the pits were below the level of the ground; the inside measure was 12 feet. The width of the fire-place, in the direction of the bars, was 2 feet 9 in.; the height of the bars from the roof was 3 feet 4 inches; and the width of the fire-place, the long way, was 5 feet. He would now come to the second operation—this was the fusion of the calcined product from No. 1 with the metal slags from No. 4, the produce of this being coarse metal; the substances of air, another most necessary element, and specimens were shown to illustrate if broken across had various appearances, and specimens were shown to illustrate this. About the same proportion of copper existed there as there are in fine copper in the pyrites of that metal, and, according to Le Play, it varied from 29 to 37 per cent. His analysis of coarse metal had given—copper, 33.7; iron, 33.6; nickel, cobalt, and manganese, 1.0; tin, 0.7; arsenic, 0.3; sulphur, 29.2; silica, mechanically mixed, 1.4. Dr. Percy then gave the formula of this, the results of which would be—copper, 34.6; iron, 34.1; various metals, 1.5; sulphur, 29.8. The slags which came from this fusion were in some instances compact, in others there were a quantity of angular fragments of quartz, which gave them a porous appearance, and which had not been so carefully examined; the metal, in general, has a tendency to go to the bottom, but there will be very often small shots disseminated through it. Mr. Napier states that, even under careful supervision, about 200 cwt. have to be returned and re-melted from each charge. These slags, however, were in general from time to time tested, so that their value could be arrived at. It was of great importance in metallurgical operations that they should always pay attention to waste products; and he had known instances where a neglect of this and proper precautions had not only led to the sacrifice of hundreds, but likewise of thousands, of pounds. The specific gravity of the coarse metal powdered, determined in water at 12 centigrade, containing 33.7 of copper, had given 4.56; the slag not powdered, probably owing to the cavities, would be 1.4; the masses, as they are tapped into the sand-beds, could be reckoned at 2.4.

The calcination of the coarse metal, which was performed in an appropriate furnace, he need not largely dilate upon, the product being granulated coarse metal; an analysis of a sample of this calcined had given—coarse metal, unchanged, 51.2; iron, 19.5; sesquioxide of iron, 22.5; various oxides, 0.6; silica, unchanged, 0.5. Several other analyses were shown. The composition of the metal, as put in the calciner, was—copper, 32.3; iron, 36.7; sulphur, 29.3; insoluble matter, 7; after calcination—copper, 3.3; iron, 36.7; sulphur, 11; insoluble matter, 7; the sulphur was expelled, and the oxygen admitted. One of Le Play's analyses had given—coarse metal, 89.4; oxygen, 9.6; after calcination—copper, 78.3; sulphurous acid, 21.7. The next operation was No. 4, the fusion of the granulated metal with Australian carbonates, and roasted and refined slags; the produce of this was white or blue metal; when the Australian carbonates were used, the product was white metal. Specimens of the two were shown, but the consideration of this process was deferred until the following lecture.

The lecture by Mr. WARINGTON SMYTH, on Tuesday, was on the "Discovery of Lodes." These might be found under different circumstances—often by fortuitous occurrences, such as the opening of a rivulet; a disintegration of the earth from various causes, as in the case of tin and gold in stream-works; it might arise from the smaller particles being separated from the parent rock, and thus disseminated. In instances where the lode was not discovered at surface the operations of containing were sometimes very expensive. The lode was on occasions covered with alluvium and drift. In tracing the coal in Lancashire, there were great difficulties often to be encountered, on account of the great quantity of drift. Crossing from Lancashire to Derbyshire, there you do not find the drift. In the stratified deposits the lodes are more or less horizontal, and these are displaced at certain angles; at others more slightly. A diagram was shown of this, and the difficulty of following out a lode illustrated.

In some cases, in order to arrive at a mine, it was necessary that boring should be resorted to, the drift being nearly 100 ft. in thickness; in others the colliers the "amat." There are many coal workings undertaken on account of the locality; persons who are found; if they are not, however, of the proper carboniferous formation, they often lead to great misconception.

The theory of ferruginous springs was then described. It was necessary that the practical man should always judge between the true and false indications. The lecturer then alluded to the salt springs: when these were discovered, it could be ascertained there was a bed of salt near. Naphtha and petroleum produced gaseous exhalations. At Walsall, in Staffordshire, there was a cottage where, by metal fire. This pipe, they were enabled to keep up a sort of illumination, in fact, the coal was at the extremity of the coal field; it passed through sandstone, and he could only imagine that it did not come out previously, as the superincumbent bed above the coal mine was retentive clay. In Nova Scotia, a large quantity of this is found through the bed of the river. In some of the salt mines in Hungary the carburetted hydrogen was used to light them. The lecturer then alluded to the fire wells in China, as well as to the rock of Pietra Mala, between Bologna and Florence, which constantly emitted gaseous exhalations. At Lake Baikal, in the Caspian, the same phenomena were often observed. It was not to be expected that they could be followed to the site at surface as it was in depth. Coal are much altered, according to the depths at which they are found; this was described and

WEEKLY LIST OF NEW PATENTS.

GRANTS OF PROVISIONAL PROTECTION FOR SIX MONTHS.—H. CLARK, Glasgow: Consumption or prevention of smoke, applicable to steam-boilers and other engines. F. HIGGINS, Woodlands: Laying down electric telegraph cables. J. BURNETT, Bedford: Binding and sheathing metals. J. J. COOPER, London: Steam plough. W. SHARLAND, Sheffield: Metallic compound, applicable to the manufacture of articles for which compounds resembling German silver are at present used. H. BRASHEAR, Queen-street-place, New Cannon-street: Manufacture of malleable iron and steel, and also in the manufacture of railway bars, and other bars, plates, and rods, from iron or steel so manufactured. W. WILSON, Canterbury, Newington, J. J. FIELD, Sussex-street, Wandsworth-road: Casting or moulding of liquid and other substances. J. T. WAT, Welbeck-street, Cavendish-square: Obtaining light by electricity.

MANUFACTURE OF IRON.—Mr. J. C. HADDAN has patented an invention for the direct production of malleable iron and steel from the ore, without mixing with the ore any solid combustible. The broken ore, either with or without previous roasting, is placed in an ordinary smelting furnace, and, according to its size, from two to four of Bessemer's refining furnaces are placed around it, at such elevations that the molten metal will flow into them to the desired height. Conveniently connected to the furnaces already mentioned an additional refining furnace of the reverberatory kind is also placed, into which the molten metal is intended to be run, when the first-mentioned refining furnaces are tapped, and, further, one or more gas-charging furnaces are also employed, which consist of close stores, capable of being charged at will with fresh combustible matter, without allowing the gases to escape; and when the furnaces are charged with fuel, the gases are drawn off by means of a steam-air, and steam are passed through them in such proportion that the heat is maintained nearly uniform, and the steam and air are converted into nitrogen, carbonic oxide, and hydrogen. These gases, or a considerable portion of them, before arriving at the smelting furnace, pass through the upper part of the first-mentioned refining, where they serve to reduce a portion of the oxides formed therein; and whilst retaining the great heat acquired in their passage through these furnaces become mixed with the exact equivalent of heated atmospheric air suitably supplied, and then pass into the smelting furnace for the purpose of reducing and fusing the ore, and a portion of these gases, together with atmospheric air, is likewise supplied to the reverberatory furnace to effect the still further conversion of iron into steel, &c.

MANUFACTURE OF IRON.—Messrs. Armitage and Lea, of Farnley, have provisionally specified some improvements in the manufacture of iron. It is a well-known practice in the manufacture of iron, in order to assist the refining, to blow the iron into the action of the hammer. They propose to bring a current of air and steam into contact with the metal during the hammering. The quality of the iron is improved, and the wear and tear of the hammers, anvils, and tools, is considerably lessened.

ECONOMISING HEAT.—Mr. J. A. MOLINEUX, of Brighton, has invented some improvements, which consist in the use of two closed metal boxes of any shape or size. The inner has a number of thin metal tubes, or chambers, of very suitable form. To the outer box is fixed the ordinary feed-cocks, with pipes leading to the pumps, and a pipe connected to the tender or water-tank for the admission of cold water; there is also a pipe fixed to the lower part of the outer cylinder, which is attached to a small valve to prevent the water, after it has passed the feed-cock, from returning into the outer cylinder.

ELECTRIC LAMPS.—Mr. J. B. PASCAL, Lyons, provisionally specified some improvements in electric lamps. He employs two currents of electricity; the one being the main current in connection with the electrodes, and the other a secondary one to keep the electrodes in their proper relative positions. The upper electrode is mounted and fixed at the top of the lamp, while the lower one is supported by a rod or piston resting in a cylinder, containing mercury or other suitable fluid. The fluid cylinder is in connection with another cylinder of mercury at or near the same level. The upper part of this second mercury cylinder is in communication with a bent pipe with a vessel containing acidulated water, in which the wires or poles of the second battery terminate. The primary current from the battery, producing the light, passes through the coil of an electro-magnet, which it excites and attracts an armature. The force of a spring acting on the armature is opposed to the attraction of the magnet. The armature is placed in the circuit of the secondary battery, which it breaks when it advances to the temporary magnet, but again makes it on receding therefrom by the force of the spring. Supposing the electrodes to be in position to produce the proper light, the primary current passing through the electrodes producing the light will keep the armature up to the electro-magnet, during which the secondary current is suspended; but supposing the space between the electrodes to increase, the light and also strength of the primary current will diminish. This diminished power of the current will cause the electro-magnet to drop the armature, which immediately establishes the current of the secondary battery, which in its passage through the acidulated water decomposes it, and generates gas. The vessel being otherwise closed, it passes over and presses on the surface of the mercury in the cylinder or reservoir, and forces a part of the mercury into the cylinder supporting the electrode, which is thus raised, and thereby renewing the strength of the primary current, augmenting the light, and again breaking the circuit of the secondary current, to prevent the further generation of the gas.

RAILWAY BRAKES.—Mr. E. FINCH, of Bridge-works, Chesham, proposes to arrange the end of the brake lever so as to move on the axis by which the brakes are actuated; and the brake lever has a worm by which the blocks can, when away, be adjusted so as always to retain the same position in relation to the carriage or wagon.

WHEELS FOR RAILWAY AND OTHER CARRIAGES.—Messrs. P. V. BEAUMONT and C. ERHARD, of Paris, propose instead of making the spokes of wheels in one piece from the nave to the felloe, as heretofore, to make each of the spokes in two parts, one part being fixed to the felloe and the other to the nave, and the two parts being connected together by a pin on one of the parts passing through a slot formed in the other part. By this means it will be seen that the axle will always be below the centre of the wheel. The parts of the spokes fixed to the felloe are made in two parts, between which the parts of the spokes fixed to the nave pass; and their ends are held securely by being fastened to rings, the inside of the rings being sufficiently large to admit of the movement of the nave; and the two sets of the parts of spokes fixed to the felloe are held together by means of the pins, which pass through the slots in the other parts of the spokes. Or, in place of having spokes fixed to the felloe, two discs may be employed, the spokes fixed to the nave working between them, the two discs being held together by means of the pins which pass through the slots in the other spokes, and a hole being left in the centre of the discs for the movement of the nave.

AGRICULTURAL STEAM-ENGINES.—Mr. CHAS. BURRELL, of Thetford, provisionally specified some improvements, which consist in applying chain wheels to the shafts and also to the running wheels of agricultural engines. These improvements are particularly applicable when using Boyell's traction engine and in the railway, but are also applicable where the running wheels work directly on the road.

THE CALORIC ENGINE.—We learn that the Ericsson engine, notwithstanding its many difficulties which the proprietors have met with in perfecting the invention, is now in a fair way of being brought into general use; so that Mr. Ericsson's indefatigable exertions will at last receive their reward. A New York "domestic engine" has just been set to work, and is employed in pumping-raising 3 horsepower per hour 5 feet high. Another engine, on the North River, designed for ships' use, promises important results. The caloric engine occupies scarcely any space, and may be put into operation in from 15 to 20 minutes. For the last ten weeks, a boat 50 ft. long, propelled solely by caloric, has been in use between Staten and Long Islands, and the consumption of fuel has been extremely trifling.

CONSUMPTION OF SMOKE.—Mr. D. BETHUNE, Cambridge-terrace, Hyde-park, provisionally specified an invention which consists in admitting the air through hollow grate bars, the air passing from the front of the grate bar to the back of it, and thence through a proper opening in the bridge of the boiler or furnace, made for that purpose, into the flue of the boiler or furnace, where it comes into contact with the gases arising from the fuel on the grate, and causes such gases to ignite, and are the consumed. By passing the air through the hollow grate bars it becomes heated, and while it increases the draught of the chimney it does not materially lessen the heat of the furnace, and thereby effects a considerable saving in fuel. A slide or valve is used to regulate the quantity of air to be admitted into the flue. He also admits air into furnaces for the manufacture of iron, in order to consume the smoke arising therefrom, and without injury to the iron, such air being introduced considerably above the ore in the furnace. The air may be introduced into such furnaces by perforated plates of iron being inserted in the chimney, or through perforated bricks.

PURIFYING PLASTIC CLAY.—Mr. JOHN HARLAND, Newcaston-on-Tyne, provisionally specified a peculiar construction and arrangement of machinery or apparatus for cleaning or purifying clay, and for making bricks, drain pipes, or other similar articles, whereby a great saving of power is effected, and the clay is well purified or freed from impurities according to the ordinary method at present in use, the clay is contained in a stationary box, fitted by a travelling ram for forcing it through suitable dies or between bars at the end of the box (according to the article to be made). But according to this invention, the clay is contained in a travelling box running on antifriction rollers, and impelled by means of a rack and pinion, or other suitable mechanical contrivance, for the purpose of forcing the body of clay against the dies or bars employed for shaping it. These dies or bars are fitted to each side of the machine, and are so disposed as to admit of the box passing along each side of them during its forward motion. The lid of this box is fitted in grooves in which it is free to slide. As the box moves forward, the front edge of the lid comes in contact with the bars or dies, and is arrested, whilst the box with the clay continues to travel onwards, and forces the clay through the moulding dies. It is thus obvious that an immense reduction of friction is obtained, as the mass of clay is never required to move or rub against the sides of the box. The purifying of the clay is accomplished by forcing it through a grating of any desired degree of fineness, placed either in the lid of the box or at the end thereof, so that on starting the machine the clay will be forced through the grating, which are sufficiently fine to exclude small stones, &c. This purifying process may be carried on simultaneously with the manufacture of bricks or other articles, the fine clay exuding by the pressure on it through the grating in the box lid, while the coarser clay is being squeezed through the bars or dies in the process of being moulded into bricks or other articles. If, if desirable, one box may be kept for purifying, and another for brick making.

OMNIBUS TELL-TALE.—Mr. PARKER, of Elm House, Homerton, has just specified his patent (obtained through Mr. Campin, the patent agent) for an improved tell-tale for public vehicles; which he states, in his specification, consists in an apparatus for checking the number of passengers travelling by a vehicle, such apparatus consisting of a tube or tubes, pipe or pipes, descending from a reservoir box, or otherwise in motion, as hereafter explained, a globular or other missile descends from the upper part of this tube (or one of the tubes where several are employed to check the receipt of several different fares), and this missile strikes the gong or sounding instrument, either by contact with the sounding surface, or may be by acting upon a clapper or trigger, or the missile may either be made to descend without acting on any sounding instrument, a bell or gong being sounded by the same movement as will set the tell-tale in motion. Thus, should any attendant charged with that duty not put the tell-tale in motion (which he is enabled to do by pressing on a piston attached to a frame, which arrests and discharges the missile at a turn) each time a passenger gets in or upon the vehicle, it would be at once apparent to the passengers and all persons waiting by such vehicle, by reason that the conductor would be afraid of any false statement of his being related by the evidence of some of the passengers: having this passed the gong or sounding instrument, the missile then passes through a tube (a box or case below, which can be securely locked or fastened, the number of mis-

siles found in which tells the tale, or registers the number of passengers. The tube might, if thought desirable, be of strong clear glass, the missiles of some strongly coloured material, and that by exhibiting the descent of the missile attention would be further attracted to the use of this tell-tale, and it might also be desirable to have an indicator board, or dial, in connection with the apparatus.

SOCIETY OF ARTS—AWARDS OF COUNCIL.

On Wednesday, the Chairman announced that medals had been awarded to the following gentlemen, whose papers on the subjects named have been deemed worthy of this special mark of recognition:—

To Mr. Christopher Binks, for his paper "On some New Methods of Treating Linseed Oil and other Drying Oils, for improving their drying properties in their application to paints and varnishes;" and "On some Combinations and Phenomena that occur among the Elements engaged in the Manufacture of Iron, and in the Conversion of Iron into Steel"—the Society's silver medal.

To Mr. R. Temple (Chief Justice of British Honduras), for his paper "On British Honduras, its History, Trade, and Natural Resources"—the Society's silver medal.

To Mr. Ed. G. Squier (United States of America), for his paper "On Central America, and the proposed Honduras Inter-Oceanic Railway"—the Society's silver medal.

To Mr. E. Baasford (of Surdah, East India), for his paper "On Experiments with Silk-worm with a view to improve the present Silk Yields in Bengal"—the Society's silver medal.

To Mr. J. B. Smith, M.P., for his paper "On the Means to be adopted for obtaining Increased Supplies of Cotton"—the Society's silver medal.

To Major H. B. Sears (United States of America), for his invention of the Nautilus Diving Machine—the Society's silver medal.

COLLIERY ACCIDENTS.—(From our Wolverhampton Correspondent).—A verdict of "manslaughter" was returned by a coroner's jury, at Darlington, on Monday last, against an engineman named George Prece, employed at Herbert's Park Colliery, Darlington. A man named Aaron Davies and two others were ascending the shaft of a coal mine, which was considerably more than 100 yards deep, in a loose skip; the skip was raised by Prece, the engineman, very rapidly, and away from the side, striking the sides of the shaft, and from this cause, when it was 20 yards from the bottom, Davies was thrown out and killed. Mr. Brough, the Inspector of Mines, stated that, from an examination of the winding tackle, he found that the skip was raised 12 ft. by the first stroke of the engine, owing to there being an undue quantity of lap of chain on the drum, which increasing its circumference necessarily caused the ascent to be more rapid. It was the almost universal custom in South Staffordshire, and was very necessary where loose skips were used, for the engineman, after starting, to stop for a moment or two so as to allow the skip to become steady; and in the present case the evidence showed that this precaution was not taken, on which account the jury returned a verdict of "manslaughter" against Prece. Mr. Brough added that it was very desirable in deep pits for guides and cages to be provided, so as to prevent the men swinging about in their ascent and descent.—On Wednesday, Mr. Mills, the proprietor of the Gawn Colliery, at Rowley Regis, attended before Mr. J. Leigh, the stipendiary magistrate, at Wolverhampton, to answer an information preferred against him by Mr. Brough, the inspector, for not informing him of the death of a man who died in consequence of an explosion at his colliery, which took place on Sept. 16. Mr. Mills had informed Mr. Brough of the accident, but said that he was ignorant of the fact that the Coal Mines Inspection Act required him to give information of subsequent deaths resulting from it. No second magistrate could be found, and Mr. Mills pleading guilty, Mr. Brough withdrew the information on his paying £1 to the Wolverhampton Ragged School, and £1 s. costs.

COLLIERY ACT CONVICTIONS.—Yesterday, at Stockport, Mr. G. Wain, manager, and Samuel Higginbotham, fireman, of Messrs. Jowett's Bredbury Colliery, have been convicted at Stockport, under the Coal Mines Inspection Act—the former for omitting to send notice of an explosion of fire-damp, which happened on Aug. 19, to Mr. Wynne, the inspector of the district, and for neglecting to observe the general rule in that Act; and the latter for a breach of the 44th special rule, which renders it compulsory to put up a signal at the entrance to any place where danger is known to exist. For the first offence a penalty of 10l. was imposed; and in the latter case nominal penalties of 10s. each, as the defendants, through their attorney, pleaded guilty to the charges, and promised to be more careful in future.

SAFETY-LAMPS.—Upon several occasions we have expressed our approval of safety-lamps in which the flame is extinguished by opening; and our description of the lamp patented by MM. Dubrulle, Mozer, and others, have rendered readers familiar with the subject. In noticing the inventions of Messrs. Dubrulle and Mozer, we observed that by the use of such lamps explosions would be almost impossible, and we continue to maintain that opinion. It appears, however, that the simplification of Mozer's lamp, now being introduced into this country by Mr. Munier, of Paris, is calculated to become more extensively adopted than any of its predecessors. It will be remembered that the first lamp patented by Mr. Mozer, in this country, was rather complicated, the extinguishing of the flame depending very much on the action of a trigger, and the second lamp was more simple in its construction, the wick being, in this instance, drawn into the wick-tube when any attempt was made to withdraw the bolt which prevented the top being screwed off. In Mr. Dubrulle's lamp this objection did not exist; but, as the extinguishing of the flame depended on the action of a spring which was released upon unscrewing the top, many had their doubts as to the durability of the lamp, although we believe it has been adopted in several large collieries in this country, and is a favourite in France. The peculiarity in Mr. Munier's lamp is the use of a kind of false holder, which forms a nest for the actual holder. The false holder always retains its place, but the true one is so fixed upon the axis of the rod which withdraws the bolt, whereby the lamp is looked, so that before the key is half turned the wick holder is entirely removed from the aperture in the false holder, or extinguisher as it might more properly be called, and the flame is thus extinguished. We cannot, of course, assert that these modifications have brought the lamp to perfection, but it is certainly well worthy of inspection by all interested. The weight is not great, and the price is low—the cost of a lamp on the Davy principle, with these improvements adapted to it, being 3s.; and of a lamp on the Mozer principle, with part glass sides, 10s. 6d.—so that it would seem that there are fewer objections to its application than to many other patent safety-lamps which have been brought before the notice of the colliery owners of this country.

SOUTH AUSTRALIA.—The dates from Adelaide, via Melbourne, are to Sept. 11. Various changes of the Ministry had occurred since the last mail. Mr. Torrens had succeeded Mr. Baker, and was the Premier at the period to which our information reaches. Such difference of opinions had so constantly been shown between the two Chambers, to the great detriment to the progress of Government business, that the Press had begun to advocate a consolidation of the two into one, to consist of 54 members. The Northern Railway was to be opened to Gawler on Oct. 5. A free distillation Act, it was expected, would be passed forthwith: a heavy duty was to be imposed on the importation of foreign spirits. The Steam Postal Bill was to be amended, to increase the proposed subsidy to 15,000l., on condition only that the mail steamer called at Kingscote Harbour, Nepean Bay. Application had been made to the Government for leases of pasture lands, amounting in the aggregate to 4,300,000 acres. It was also proposed to develop a new branch of colonial industry, by planting mulberry-trees extensively, and thus to breed silk-worms on a large scale. These trees thrive luxuriantly in the colony, and there was practical evidence of the quality of the silk obtained from the native silk-worms. A large number of Chinamen were wrecked at Willunga, who, for the greater part, were afflicted with leprosy, and much alarm was felt at Adelaide lest this fearful malady should spread itself in the colony.

CALIFORNIA.—The *Star of the West*, from Aspinwall for New York, brought \$2,100,000 in gold, \$500,000 of which are on English account. The gold shipments to New York during the first half of the present year were slightly over \$32,000,000, showing a falling off of \$4,000,000 as compared with the corresponding period of 1856. The decrease is mainly in July, August, and September, and to this fact some attribute the existing commercial revulsion in the Atlantic States.

In our Journal of Sept. 19, we adverted to the excitement which prevailed amongst the miners and settlers in Mariposa county, California, in consequence of the attempts of Col. J. C. FREMONT and his agents to enforce a claim to the mines and mineral veins under a location known as "Las Mariposas Grant," and quoted from authoritative statements the grounds on which the claim was resisted, and which moved the Supreme Court of the State to grant an injunction, preventing Col. FREMONT from interfering with the operations of the Merced Mining Company.

We learn from our latest advices (Oct. 5) that a bitter contest was still being waged between the parties, and that the Merced Mining Company had published, and extensively circulated, a public notice in the following terms:—"Through the medium of the press, here and in the East, rumours having been circulated to the effect that the controversy heretofore pending between JOHN C. FREMONT and a large portion of the people of Mariposa county, involving the right of the people to work the mines, was being settled by the courts in favour of FREMONT, the undersigned deems it his duty to the public, here and elsewhere, to declare said statements to be false. The company represented by the undersigned in the year 1851 (being four years anterior to any claim of title by FREMONT), and under express sanction of State legislation, took peaceable possession of the veins known as the Josephine and Pine Tree, and have since continued to work the same; and to make the property available have expended upon the same, and other contiguous mines, nearly \$1,000,000. Meanwhile the Supreme Court of California has repeatedly determined that the precious minerals, whether in public or private lands, were the property of the State, and that the occupation and working of the same is subject alone to State legislation, as a necessary corollary of State ownership. The Merced Mining Company is in possession of the mineral veins referred to, under a license from the State, which the Supreme Court has solemnly adjudged to be the true owner. So long as this license continues, which the State is bound in equity never to revoke, the rights of those holding mineral veins in Mariposa are good against FREMONT and all the world; and it is the fixed determination of the company to maintain its possession, and to avail itself of the license of the State, by working the veins in future on a larger scale than heretofore. The undersigned, having also been informed that the said FREMONT, by a trespass upon said veins, has obtained possession of several tons of quartz rock for shipment abroad, representing the same to be his property, hereby notifies all whom it may concern that the rock aforesaid was quarried from the veins owned and possessed by the company. —Geo. N. SHAW, President of the Merced Mining Company."

This notice is officially countersigned by Mr. SMYTH CLARKE, the secretary of the company, and certified by a notary public, as well as the British and French Consuls, in due form.

The San Francisco correspondent of the *Times*, in a communication which appeared in that journal yesterday, states that the publication of the foregoing notice has been prompted by the report that a purchase or loan is about to be made either in England or France, or both, and alludes to a contemplated advance to construct a canal in the district. Our readers will remember that we advised them of this intention two months ago, in the article to which we have referred; and all we need add, therefore,

at present is a repetition of the caution we then offered to those interested in Californian speculations not to embark capital without a satisfactory assurance of the value of the security offered.

THE ISTHMIAN OF SUZ CANAL.—We learn that the Sultan of Turkey is about to grant Mr. Ferdinand de Lesseps the necessary firman for the construction of the ship canal across the Isthmus of Suez. It is rumoured, however, that, at least in the present depressed state of monetary matters, the concession will be of little value, from the impossibility of obtaining capital for carrying out the scheme. These rumours will, no doubt, be satisfactorily met by the advocates of the undertaking; and, as it was some time since stated by the projectors that ample capital was forthcoming from subscribers out of England, we do not see how the reception which the proposition met with in England can in any way prevent the execution of the work, although, perhaps, some of its opponents may be able to explain. It is true that the project, regarded in a commercial and political point of view, has been condemned by the most competent authority in England—Lord Palmerston; and that the engineering difficulties have been pronounced insuperable by Mr. Robert Stephenson, M.P. But, as the firman is obtained, and the requisite funds are subscribed in other countries, we opine that the support of England will be considered of little consequence. But this satisfactory state of affairs has not yet been proved to exist, neither have the disadvantages to England, nor the insuperable engineering difficulties been so fully set forth as could be wished; so that it behoves the English public, and especially English capitalists, to thoroughly ascertain the merits of the scheme before they decide either to support or to condemn the enterprise.

The East India Coal Company have convened the second ordinary general meeting for Dec. 7. The retiring directors are Sir Thomas Herbert Mackay, Mr. L. D. B. Mackay, and his Highness Meer Jaffer Ali, who will offer themselves for re-election, as also Mr. J. Noble and H. C. Field as auditors. There are several new candidates, who, in conformity with the deed of settlement, have taken the necessary steps to make them eligible for election. For directors: Mr. J. Gregory, of Messrs. White and Co., bankers, Haymarket; Mr. W. S. Austin, barrister, Reform Club; Mr. G. Armitage, Clement's-lane; and Mr. P. Brown, Basinghall-street. For auditor: Mr. W. H. Dawson.

The market for American securities is quiet; but a moderate business has been done during the week, either in state stocks or railroad bonds, whilst prices of both have generally improved.

THE WESTMINSTER BELL.—It is now believed that the cause of the fracture of the great bell designed for the Westminster clock-tower has been scientifically ascertained. Experiments with the drill show that the bell was cast much $\frac{1}{2}$ in. thicker in the waist than it should have been. A consequence of this excess was the great increase in the weight of the bell, and a corresponding increase in the size of the clapper necessary to bring out the full sound. The clapper, however, must needs strike, not against the waist, which had been made needlessly strong, but against the sound-bow, left relatively weak; and hence, in the opinion of scientific men, the fracture. Messrs. Warner, the founders of the broken bell, will not recast it, that work has already been assigned to Mr. Mears. The new bell is to be ready in three months.

SUBWAYS FOR THE METROPOLIS.—Mr. Jasper W. Rogers, of Dublin, claims the distinction of having been the first engineer to draw the attention of the Metropolitan Board of Works to the advantage of subways, or dry tunnels, as a simple means by which the surface of the street might not ever be disturbed, except for its own repair; the need of which would be reduced at least fourfold, possibly much more; and all the laying and repairing of all the pipes and wires would be comparatively without cost, and the fouling of sewers entirely obviated. Mr. Rogers complains that his plans were returned in June, 1856, without consideration, and that subsequently similar plans were recommended and rewarded with a prize by the board.

STATISTICAL BOOK-KEEPING.—Under this title, Mr. F. C. Krepp has published (through Messrs. Longman) a very elaborate treatise, explaining a mode of simplifying and abbreviating the common system of book-keeping by double entry. At first sight the new method certainly appears marvellously confused, yet when a few pages have been read its advantages for many purposes become apparent, although we question whether in some cases the ordinary double entry would not be more intelligible, and capable of more satisfactory application; this, however, can only be proved when the new system has had a fair trial. For keeping the accounts of mining and metallurgical companies, railways, and, indeed, those of public companies generally, we believe no set of books upon the present system could give such satisfaction to either shareholders or directors as those of Mr. Krepp, in which there is "a place for everything," and there could be little difficulty in satisfactorily ascertaining whether the entries are correctly made. We should in practice introduce a modification, to do away with the necessity for two coloured inks, but otherwise the use of this system of keeping public companies' accounts would be highly advantageous.

WHOLESALE BREAD.—In the *Mining Journal*, some seven months since, we referred to a meeting of members of the medical and scientific world at the Royal Polytechnic Institution, to ascertain and explain the most effectual means to prevent the adulteration of bread; and we stated that Prof. Pepper's lectures on the Chemistry of Bread were calculated to maintain the high reputation of the Institution, as a medium for the diffusion of useful knowledge in the most popular manner. The bread which Prof. Pepper referred to as the model of purity was that manufactured by Mr. E. Stevens, of Cambridge-road, and having regularly eaten it for some time, we can now fully corroborate his very high opinion of it. This bread is not only extremely palatable, but does not appear to possess any disposition to cause indigestion, flatulency, or acidity of the stomach. This Mr. Stevens asserts, and we entertain the same opinion, arises from the bread containing nothing but pure wheat flour, common salt, spring water, and country-brewed beer; and he binds himself to forfeit 500l. to any charitable institution if adulteration be discovered.

In the Court of Vice-Warden of the Stannaries.—Stannaries of Cornwall.

In the Cause of *JOHNS v. LYLE.*

NOTICE IS HEREBY GIVEN, that, pursuant to an ORDER, or DECREE, made in the above-mentioned Cause, and bearing date the 26th day of September last, a PUBLIC AUCTION will be HELDEN at FOLGEAR and LANCARROW MINE, in the parish of Wendron, within the said Stannaries, on Monday, the 7th day of December next, at Twelve o'clock at noon, for SELLING, either together or in lots, the undermentioned MINING MACHINERY, MATERIALS, and OTHER EFFECTS, viz:—

One 14-in. cylinder STEAM-ENGINE; one boiler, 6 tons; 25 fms. of pumps, with flat-roads complete; three 9-in. pumps, and one 9-in. working barrel; two 7-in. pumps for working attached to the engine stamps, with eight heads, complete; stamp buddles, kieves, dressing frames, coppers and launders; two horse whims, with shaft tackle complete; capstan and shears, 40 fms. of chain, a quantity of balk and other timber, brass, smiths' bellows, miners' tools, new iron, two iron water barrels, wheel-kibbles, wheel-barrow, counting-house furniture, and various other materials and effects in general use in mines.

For viewing the same, application may be made to the officer in possession on the mine, and for further particulars to Mr. H. S. STOKES, plaintiff's solicitor, Truro. Dated Registrar's Office, Truro, Nov. 18, 1857.

In the Court of Vice-Warden of the Stannaries.—Stannaries of Cornwall.

PURSUANT TO AN ORDER, or DECREE, made in the Cause of—*JOHNS v. LYLE.*

THE CREDITORS in respect of FOLGEAR and LANCARROW MINE, in the parish of Wendron, within the said Stannaries, are, on or before the 24th day of December next, to COME IN and PROVE THEIR DEBTS before the Registrar of the said Court, at his office in Truro, or in default thereof they will be excluded the benefit of the said Decree.—Dated Registrar's Office, Truro, Nov. 18, 1857.

AGENCY FOR COPPER AND BLOCK TIN FOR MANCHESTER WANTED, by a GENTLEMAN of fair means, who has already a connection among consumers.—Address, "G. T.," Box 58 B, Manchester.

NICKEL AND COBALT MINES.—WANTED TO PURCHASE, or RENT, MINES OF NICKEL AND COBALT.—Address, J. H. WILLIAMS, Goldenhill Cobalt, Nickel, Colour, and Chemical Works, Stoke-upon-Trent, Staffordshire.

WANTED TO LEASE, or otherwise, a MINE containing the ORES OF NICKEL AND COBALT.—Address to Mr. NICHOL, *Mining Journal* office, 26, Fleet-street, London.

WANTED, a SITUATION as JUNIOR CLERK, by a YOUNG MAN (Aged 20 years). Has been accustomed to colliery or coal mining accounts. References given, if required. Would not have any objection to go abroad.—Address, "P. M.," *Mining Journal* office, 26, Fleet-street, London.

TO MINE AGENTS.—WANTED, to proceed immediately to the COOLA MINES, near Tipperary, Ireland, an EXPERIENCED MINE AGENT, who will be required to devote his whole time to the development of the mines.—Applications, stating salary required, with testimonials enclosed, to be addressed to the Secretary, at the Office of the Silver-Lead and Copper Mining Company (Limited), Cannon House, 23, Queen-street, London. ALFRED JEFFREY, Secy. Dated this 14th day of November, 1857.

TO LANDOWNERS.—A GENTLEMAN, who for many years has been extensively employed in the West of England as a land, railway, and mineral surveyor, and who can be well recommended for his ability to execute plans and sections of all kinds neatly and accurately, is OPEN to an ENGAGEMENT, either as SURVEYOR or LAND STEWARD. No objection to go abroad.—Address, "P. Q.," *Mining Journal* office, 26, Fleet-street, London.

TO PARENTS AND GUARDIANS.—A GENTLEMAN, well acquainted with the general business of the City, OFFERS to TAKE a YOUNG GENTLEMAN into his HOUSE, to provide him with board and lodging, and assist him with influence and instruction. He will have the benefit of an extensive library, and the comforts of a quiet home.—Apply by letter, prepaid, to "P. O.," *Mining Journal* office, 26, Fleet-street, London.

BRIDGE RAILS.—600 tons BRIDGE RAILS, 56 lbs. per yard, TO BE SOLD, or LET ON HIRE.—Apply to Messrs. FULLER and HOSKIN, Bunter-street, E.C.

TO BE SOLD, a decided bargain, a 64 in. PUMPING ENGINE, in first-rate condition, without boiler. May be seen at Langford Mine, near Callington.—Application to be made to Mr. HENRY WILLS, auctioneer, Plymouth.

ANY QUANTITY OF IRON ORE FOR SALE, from PRAWLE MINE, yielding, by assay, 50 per cent. of pure iron.—For samples, &c., apply to the secretary, Mr. F. NEVILL, 4, Westwell-street, Plymouth.

MINERAL DISCOVERY.—TO LET, a LARGE DEPOSIT OF SPATHOSE, HEMATITE, and OXIDES, and a COPPER DEPOSIT OF PURPLE, GREEN, and YELLOW CARBONATE, and NICKEL, all laid open by mountain torrents, easy of access, and all down hill. Freight to Glasgow, 2s. 6d. per ton. Only four hours' sail to Greenock, by daily steamers.—Apply to the proprietor, W. FOXLOW, Esq., of Erina, near Tarbert, Loch Fyne, Argyllshire.

SWANSEA HARBOUR TRUST.
RAILWAY WAGONS, NEW OR SECOND-HAND.
The Trustees are prepared to PURCHASE, or receive TENDERS for BUILDING, THIRTY NARROW GAUGE BALLAST WAGONS, to contain 5 tons each.
Copies of the specification may be had at the Office of the Engineer to the Trust, Harbour Office, Swansea.
Tenders to be delivered to the undersigned, on or before Monday, the 14th day of December next, and to whom full particulars as to second-hand wagons may be sent, Harbour Office, Swansea, Nov. 19, 1857.
LEWIS THOMAS, Clerk.

SCINDE RAILWAY COMPANY.—The Directors of this company are prepared to receive TENDERS for the CONSTRUCTION of the RAILWAY between KURRACHEE and KATRA, a distance of 100 miles, or thereabouts.
The plans and conditions of contract may be seen upon application to Mr. T. A. YARROW, the company's consulting engineer, at his offices, in Gresham House, on and after Tuesday, the 17th inst.
Tenders to be addressed to the Directors, and lodged at the company's offices before Twelve o'clock on Friday, the 4th day of December. The directors do not bind themselves to accept the lowest, or any tender.
By order of the Board, THOMAS BURNELL, Sec.
Scinde Railway Company's Offices, Gresham House, Old Broad-street, London, E.C., Nov. 14, 1857.

EAST INDIA COAL COMPANY (LIMITED).—Notice is hereby given, that the SECOND ORDINARY GENERAL MEETING of the shareholders in this company will be HELD, in accordance with the Deed of Settlement, at the company's offices, 221, Gresham House, Old Broad-street, on Monday, the 7th December, 1857.

The directors who retire, in accordance with the Deed, are Sir Thomas Herbert Maddock; Lewis D. B. Mackay, Esq.; and His Highness Meer Jaffer Ali; the whole of whom, being eligible, offer themselves as candidates for re-election.
The following gentlemen have also intimated their intention of offering themselves as directors:—John Gregory, Esq., of Messrs. White and Co.'s, bankers, Haymarket; W. S. Austin, Esq., barrister, Reform Club, Pall Mall; George Armitage, Esq., Clement's-lane, Lombard-street; and Peter Brown, Esq., Rasinghall-street.
The auditors, Messrs. John Noble and H. C. Read, have also intimated their intention of offering themselves as candidates for re-election; and W. H. Dawson, Esq., has intimated that it is his intention to offer himself as a candidate.
The chair will be taken at Two o'clock precisely.
The Transfer-books of this company will be closed from the 20th November until the 9th December, inclusive.
By order of the Court of Directors, HENRY HAYMEN, Sec.
221, Gresham House, Old Broad-street, London, E.C., Nov. 13, 1857.

GREAT CRINNIS COPPER MINING COMPANY.
The shareholders are respectfully informed that the ADJOURNED GENERAL MEETING will be HELD at my office, as below, on Thursday, the 26th day of November inst., at One o'clock precisely. Their attendance is earnestly requested, as business of great importance will be brought before it.
By order, WILLIAM CHARLES, Sec.
27, Austin Friars, E.C., Nov. 13, 1857.

THE WEST PAR CONSOLS COPPER AND TIN MINING COMPANY.—Notice is hereby given, that a GENERAL MEETING of the shareholders in this company will be HELD at the office, No. 117, Bishopsgate-street Within, London, on Tuesday, the 24th inst., at Two o'clock precisely.
And further take notice, that the said GENERAL MEETING will be made SPECIAL, for the purpose of disposing of (as the meeting shall determine) certain shares forfeited at the special General Meeting, held on the 27th day of August last.
By order of the Committee, J. H. MURCHISON, Sec. and Purser.
117, Bishopsgate-street Within, Nov. 11, 1857.

THE GREAT BARRIER LAND, HARBOUR, AND MINING COMPANY (LIMITED).—In 10,000 shares, of £5 each.
Deposit, 10s. per share at the time of application, and 20s. per share upon allotment.
Prospectuses can be obtained at the office, No. 117, Bishopsgate-street Within, London.
J. H. MURCHISON, Sec.

WEST END MINE AND QUARRY OFFICES, 5, WATERLOO PLACE, PALL MALL.

MESSRS. BRUNTON AND CO. ENGINEERS AND MINERAL SURVEYORS, undertake the MANAGEMENT and WORKING of MINES, QUARRIES, &c., and CONDUCT the LONDON AGENCY of all MINERAL PROPERTIES in their offices with system, economy, and regularity.
Messrs. Brunton and Co. beg to inform proprietors of mines, &c., that the business of these properties is carried on in their office upon the following principles, viz.:—Accounts systematically and closely made up.
Statements in detail, and clear summaries of finance and expenditure.
Entire and impartial opinions of books, reports, and documents, to all shareholders, for peruse or extract.
Immediate communication of any important occurrence to the shareholders.
MINERAL PROPERTIES SURVEYED, and ESTIMATES of MACHINERY, PLANT, and COSTS of WORKING FURNISHED.

INVESTMENT.—Messrs. FULLER and CO., 51, THREADNEEDLE STREET, LONDON, continue to TRANSACT BUSINESS in BANKING, MINING, RAILWAY, and OTHER SECURITIES, many of which will safely pay from 15 to 25 per cent. Those of a progressive character frequently rising above 100 per cent.

Since calling public attention to several mines, a rise has taken place of the following:—Craddock Moor, from £35 to £45, equal to £10,500; Calstock Consols, £3 1/2 to £6 1/2, or £12,288; East Russell, from 10s. to £2, or £6000; Wheal Edward, £4 to £9, being an increase of £20,400; Swanpool, £1 to £4, or £5400: total increase of value in four months, £54,718.

The following shares present equally as good prospects of success, and worth immediate attention:—
Date (Limited). Lady Bertha. Peter Tavy Consols.
Great Wheel Busby. Lady Eliza. South Carr Brea.
Drake Walls. South Lady Bertha. West Wheal Edward.
Toburny Consols. South Bog (Limited). Whitechurn Down.
WANTED.—Alfred Consols, Botallack, Dolcoath, Hingston Down, North Roskear, South Caradon, Wheal Margery, Edward, Ludcott, Toldy.

UNITED STATES OF AMERICA.—DUPEE, PERKINS, and SAYLES, BOSTON, MASSACHUSETTS, BROKERS for the PURCHASE and SALE of STEAM, CITY, and RAILROAD SECURITIES, MANUFACTURING and BANK SHARES, give particular attention to the MINING COMPANIES OF LAKE SUPERIOR, and furnish reliable information concerning them.
[DUPEE, PERKINS, and SAYLES refer to the Editor of the Mining Journal.]

INVESTMENTS IN BRITISH MINES.
Full particulars of the most important Dividend and Progressive Mines will be found in the Fourth Edition of

BRITISH MINES CONSIDERED AS AN INVESTMENT.
Recently published, by J. H. MURCHISON, Esq., F.G.S., F.R.S.
Pp. 356; price 3s. 6d., by post 4s.
Mr. Murchison also publishes a QUARTERLY REVIEW OF BRITISH MINING, giving, at the same time, the Position and Prospects of the Mines at the end of each Quarter, the Dividend Paid, &c. The Review for the Quarter ending the 30th of June, contains a Map of the Great Wheal Vor and Leland Mining Districts, price 1s. Reliable information and advice will at any time be given by Mr. Murchison, either personally or by letter, at his offices, 117, Bishopsgate-street Within, London, where copies of the above publications can be obtained.

OPINIONS OF THE PRESS.
Mr. Murchison's new work on British Mines is attracting a great deal of attention, and is considered a very useful publication, and calculated to considerably improve the position of home mine investments. —Mining Journal.
The book will be found extremely valuable. —Observer.
A valuable little book. —Globe.
A valuable guide to investors. —Herald.
Mr. Murchison takes sound views upon the important subject of his book, and has placed, for a small sum, within the reach of all persons contemplating making investments in mining shares that information which should prevent rash speculation and unproductive outlay of capital in mines. —Morning Herald.
Of special interest to persons having capital employed, or who may be desirous of investing in mines. —Morning Chronicle.
Of great value to capitalists. —Sunderland Times.
Parties requiring information on mining investments will find no better and safer instructor than Mr. Murchison. —Leeds Times.
As a guide for the investment of capital in mining operations is inestimable. One of the most valuable mining publications which has come under our notice, and contains more information than any other on the subject of which it treats. —Derby Telegraph.
To those who wish to invest capital in British mines, this work is of the first importance. —Welshman.
This work enables the capitalist to invest on sound principles; it is, in truth, an excellent guide. —Plymouth Journal.
All who have invested, or intend to invest, in mines, will do well to consult this very useful work. —Ipswich Express.
Persons desirous to invest their capital in mining speculations, will find this work a very useful guide. —Warwick Advertiser.
It is full of carefully compiled and reliable information relative to all the known mines in the United Kingdom. —Sheffield Free Press.
Those interested in mining affairs, or who are desirous of becoming speculators, should obtain and carefully peruse the work. —Monmouth Beacon.
Every person connected, or who thinks of connecting himself with mining speculations, should possess himself of this book. —North Wales Chronicle.
A very valuable book. —Cornwall Gazette.
All who have invested, or intend to invest, in mines, should peruse this able work. We believe a new and useful publication, or one more to be depended on, cannot be found. —Plymouth Herald.
With such a work in print, it would be gross neglect in an investor not to consult it before laying out his capital. —Poole Herald.
Mr. Murchison will be a safe and trustworthy guide, so far as British mines are concerned. —Bath Express.

On the 1st of every month is published, price One Shilling.
THE ARTIZAN: A MONTHLY JOURNAL OF THE MECHANICAL ARTS. Illustrated by large Plate Engravings and Woodcuts of Engines and Machinery actually constructed, and by the most celebrated firms in the kingdom, all accurately drawn to scale.
The ARTIZAN has a large and widely-extended circulation amongst the following leading classes:—viz., Steam Navigation Companies; Ship-builders and Owners; Railway Companies, Engineers, and Contractors; Gas and Water Companies; Civil and Mechanical Engineers; Ironmasters and Founders; Architects and Builders; Officers of the Steam Navy; Machine and Tool Makers; Boiler Makers and Brass Founders; Agricultural and Mechanical Implement Makers; Manufacturers, Agriculturists, and others employing steam-power; Proprietors of Chemical Works, &c.
Price 1s. each number, free per post; or in Yearly Volumes, price 12s. each. A list of contents free per post, on application to the publisher, MATTHEW BOUR, No. 3, Agar-street, Strand, London.

TO BE SOLD, BY TENDER, THE VICTORIA MINE, ASHOVER.
It is in good working order, with one shaft sunk down to the loadstone, TWO ENGINES and BOILERS, ORE CRUSHER, CAPSTAN, RAILS, WAGONS, COE, &c.; everything complete for working the mine.
For further particulars and viewing the same, apply to Mr. JOHN BODEN, mine agent, Ashover.
Tenders to be sent to Mr. JAMES CAMPBELL, Mallock, on or before the 1st December next. Mr. Campbell does not bind himself to accept the highest, or any tender.
The following is the last report of Mr. Boden, the agent:—
TO THE SHAREHOLDERS OF THE MIDLAND MINING COMPANY, ASHOVER.
GENTLEMEN.—The pump shaft has been sunk through the white stone to the loadstone, and the vein found; it contains no ore at that place. If anything more must be done, the vein should be found at the top of the white stone; it will be about 8 ft. to it. If there is nothing in the vein at that place, the new engine should be set down, and the east end cut forward to intersect the veins on the south side, and to meet the measures in which the old men's workings have been. To effect this the water-pipe should be continued to the level of the vein, and the water that comes down Milling-lane turned towards Milling-lane. If this was done, I have no doubt but the old engine, working 12 hours per day, would keep the water out. This being done, the mine may be considered to be satisfactorily explored, and if it was done there is a possibility of it yet being a paying mine.
JOHN BODEN, Agent.

TO BE LET, EXTENSIVE ROYALTIES OF COAL, amounting to 1000 acres, to which more may be added, if requested, in the township of Fishburn, county Durham, the seams of which have been bored to. They are known to be applicable to steam-boat, manufacturing, and coking purposes. For particulars, plans, &c., apply to Mr. THOS. E. FORSTER, 7, Ellison-place, Newcastle; or to Mr. E. F. BORD, Urpeth, Chester-le-Street.—Oct. 8, 1857.

COAL LAND TO LET.—THE MINERALS under the LEADBROOK ESTATE, in the county of Flint, containing about 400 acres, TO BE LET for a term of years, at a fair royalty. Leadbrook is 1 1/2 mile from Flint, 4 1/2 miles from the Queen's Ferry, and adjoins the River Dee. The Chester and Holyhead Railway, and the Queen's Ferry turnpike-road, run through the property. For further particulars, apply to Mr. EDWARD WILLIAMS, Garregwyd, Mold.

In the Court of Vice-Warden of the Signatures.—Statutes of Cornwall.

PURSUANT to an ORDER, or DECREE, made in the Cause of—
MARTIN T. COCK.
THE CREDITORS in respect of TREVONE CONSOLS MINE, in the parish of Padstow, within the said Statutes, are, on or before the 3d day of December next, to COME IN and PROVE THEIR DEBTS before the Registrar of the said Court, at his office in Truro, or in default thereof they will be peremptorily excluded the benefit of the said Decree.—Dated Registrar's Office, Truro, Nov. 18, 1857.

USK AND MONMOUTH, MONMOUTHSHIRE.
TO RAILWAY COMPANIES, CONTRACTORS, IRONMASTERS, AND THE PUBLIC GENERALLY.

MR. W. GRAHAM has the honour of announcing that he has been instructed to SELL, BY PUBLIC AUCTION, without the least reserve, under the direction of the proprietors, Messrs. Richards, Giles, and Gaskell, railway contractors, in consequence of their having completed their contracts, and their contemplating a dissolution of partnership, the WHOLE of their EXTENSIVE and VALUABLE PLANT, nearly new, on Thursday and Friday, the 26th and 27th days of November, 1857, comprising TWO NARROW GAUGE LOCOMOTIVE ENGINES, in good condition; 20 young and powerful cart horses, with about 40 sets of harness; broad-wheel timber carriages, brood and narrow-wheel wagons and carts, 10 railway trucks, 130 earth wagons, dobbing carts, wheelbarrows, smiths' tools, quantity of planks, 150 tons of rails, from 43 to 50 lbs. per yard; quantity of temporary sleepers, tunnelling and quarry tools, water carriage, two railway trolleys, one strong stone trolley, one light trolley, several wood sheds, two pug mills, weighing machine, several cranes, wood and iron pumps, crab winches, centres for tunnels, bridges, and culverts, horse-power chaff machine, sack weighing machine, and two pile engines and monkeys, complete, with a variety of other articles used in the construction of railways.

ORDER OF SALE.
FIRST DAY.—Thursday, 26th day of November, at the Stables and Yards in Usk.
SECOND DAY.—Friday, 27th November, at the Yards near the Tunnel at Monmouth.
Further particulars in hand bills; and descriptive catalogues may be obtained, one week prior to days of sale, at the offices of the proprietors, Monmouth; or at the offices of the auctioneer, Over-Monnow, Monmouth.
Sale to commence each day at Eleven o'clock precisely.
Dated Oct. 28, 1857.

GRAND MASONIC HALL, CORNWALL STREET, PLYMOUTH.
UNPRECEDENTED SALE OF NEARLY £3000 WORTH OF PHILOSOPHICAL APPARATUS.

MESSRS. SKARDON AND SONS are instructed by Mr. J. N. Harder, who is about to decline the profession of Lecturer on Experimental Philosophy, to announce to amateurs and patrons of science, and the public generally, that they will SELL, BY AUCTION, at the Grand Masonic Hall, Cornwall-street, Plymouth, on Tuesday and Wednesday, the 1st and 2nd of December, 1857, the most EXTENSIVE and SUPERB COLLECTION of PHILOSOPHICAL APPARATUS ever offered for public competition.

The principal portions are compactly fitted into travelling chests, and are in complete and independent sets, arranged expressly for illustrating extensive courses of lectures, on the following subjects, on a very magnificent scale:—viz., Electricity, Electro-Magnetism, Magnetism, Galvanism and the Electric Light, Pneumatics, Electric Telegraph, Combustion, Water, Oxy-hydrogen Lamps and Dissolving Views, Chemistry in general.

Among the APPARATUS will be found splendid Electrical Machines, some of which are very powerful; Voltaic Batteries, Powerful Magnets, Electro-Magnetic Motive Machines, Splendid Electric Light Apparatus, Air-Pump, a Magnificent Pair of Oxy-hydrogen Lamps for Dissolving Views, by Horns and Thornthwaite; beautiful Model of a Frigate, Photographic Camera and Stand, &c.

The whole may be viewed the Monday previous to the day of sale, between the hours of Twelve and Four, when descriptive catalogues will be ready for delivery, at Sixpence each, and the proprietor will attend to afford any information that may be required. Sale to commence each day at Eleven o'clock.

Globe Fire and Life Insurance Office, 11, Bedford-street, Plymouth, Nov. 2, 1857.

TO CAPITALISTS, COAL PROPRIETORS, AND OTHERS.

IMPORTANT SALE OF VALUABLE LEASES OF COAL MINES, KNOWN AS THE FENDLETON COLLIERY.

Situate within 2 1/2 miles of the Manchester Royal Exchange, county of Lancashire.
MR. WILLIAM GRUNDY WILL SELL, at the Albion Hotel, Manchester, on Tuesday, the 15th day of December, 1857, at Four o'clock in the afternoon, pursuant to a Decree of the High Court of Chancery, made in the Cause of KERRICH v. FITZGERALD and OTHERS, dated the 5th day of August, 1850, with the approbation of the Hon. Sir GEORGE ROSE, one of the Masters of the said Court, in One Lot.

The property to be offered comprises the IMPROVED RENTS and ROYALTIES of and in the several MINES, known as the FITZGERALD, the DUCHY, and the BLOMLEY MINES.

The FITZGERALD MINES consist of all the mines and veins of coal under 606a. 1s. 33p. of land of the statute measure, and are held for the remainder of a term of 61 years, commencing on the 3d day of January, 1840, at royalties varying from £35 to £70 per statute acre.

The DUCHY MINES consist of four mines, or seams of coal, under 56a. 1s. 18p. of land of the statute measure, held for the remainder of a term of 31 years, commencing on the 25th day of March, 1852, at royalties varying from £25 to £30 per statute acre.

The BLOMLEY MINES consist of the same four seams, or veins of coal, under 9a. 33p. of land of the Cheshire large measure, and are held for the remainder of a term of 60 years, commencing on the 25th day of September, 1851, at royalties varying from £25 to £30 per Cheshire acre.

The leasees have rights of way over the Fitzgerald estate into Broughton, for the passage of coal, free of toll.
The MINES forming the said colliery will be sold subject to an under-lease to Messrs. Andrew Knowles and Sons, at a minimum rent of £1436, and at improved royalties, varying from £70 to £130 per statute acre, and subject to the payment of all surface rents. The under-leasees also pay a way-leave rent of £10 per foot per Cheshire acre on all coal brought through these collieries from adjoining mines.

The capabilities and excellent working condition of the Fendleton Colliery; the exemption from toll into Broughton and Manchester, and the close approximation thereto, the colliery being only 3 1/2 miles from the Manchester Royal Exchange; under this one of the most desirable properties of this description in the county.

Plans and full descriptive particulars are being prepared, and may be had, gratis, in London, of Messrs. WATTS and BARNETT, solicitors, 10, Whitehall-place; and Messrs. Cooper and Co., solicitors, 2, Victoria-buildings, Gray's Inn; and in Manchester, of Messrs. HIGGINS, Esq., Broughton, near Manchester; at the principal hotels in Manchester and Liverpool; or from Mr. GRUNDY, the auctioneer, 86, King-street, Manchester.

SOUTH WALES.—Mr. ARTHUR O. DAVIES, of Dowlish, is authorised to TREAT for the SALE of TWO VERY VALUABLE GOING COLLIERIES in South Wales.

Also, TO LET, an EXTENSIVE TRACT of STEAM COAL, on a long lease, at a moderate royalty, with a railway running through the property.
For terms, apply as above.

EAST WHEAL ROSE.—IMPORTANT SALE OF STEAM-ENGINES AND VALUABLE MINING MATERIALS.—A PUBLIC AUCTION will be HELD on the above MINE on Tuesday, the 24th of November inst., at Eleven o'clock A.M. precisely, for SELLING the following extensive lot of MINING MATERIALS:—viz., Two 55 in. ENGINES, 10 ft. stroke in cylinder, and 9 ft. in shaft, with four boilers each, about 45 tons; one 70 in. engine, 10 ft. stroke, equal beam, with three boilers, about 35 tons; one 36 in. engine, 9 ft. in cylinder, 6 1/2 ft. in shaft; a new 22 in. cylinder bottom and cover, complete; nozzle and nozzle gear; eccentric and eccentric gear.

Capstans and shears, and cat-heads.
Good capstan-rope.
600 fms. pumps, varying in size from 8 in. to 19 in.
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Large quantities of staples and glands, rod and flange pins, whim and rod shives shaft rollers, skips, whim kibbles, tram wagons, railroad iron, cast and wrought-iron, gudgeons, bishop's heads, smiths' and miners' tools, anvils, vices, bellows, plates, tape, wire, engineers' tools, turning lath, old brass, 4 tons new chain iron, and numerous other articles.

Parties in immediate want can be supplied with every kind of material by private contract.—Any further information can be obtained on application to Capt. EVANS, Nance, Redruth; or the agents on the mine.
East Wheal Rose, Truro, Cornwall, Nov. 10, 1857.

TO BE SOLD, BY TENDER, THE VICTORIA MINE, ASHOVER.
It is in good working order, with one shaft sunk down to the loadstone, TWO ENGINES and BOILERS, ORE CRUSHER, CAPSTAN, RAILS, WAGONS, COE, &c.; everything complete for working the mine.
For further particulars and viewing the same, apply to Mr. JOHN BODEN, mine agent, Ashover.

Tenders to be sent to Mr. JAMES CAMPBELL, Mallock, on or before the 1st December next. Mr. Campbell does not bind himself to accept the highest, or any tender.
The following is the last report of Mr. Boden, the agent:—
TO THE SHAREHOLDERS OF THE MIDLAND MINING COMPANY, ASHOVER.
GENTLEMEN.—The pump shaft has been sunk through the white stone to the loadstone, and the vein found; it contains no ore at that place. If anything more must be done, the vein should be found at the top of the white stone; it will be about 8 ft. to it. If there is nothing in the vein at that place, the new engine should be set down, and the east end cut forward to intersect the veins on the south side, and to meet the measures in which the old men's workings have been. To effect this the water-pipe should be continued to the level of the vein, and the water that comes down Milling-lane turned towards Milling-lane. If this was done, I have no doubt but the old engine, working 12 hours per day, would keep the water out. This being done, the mine may be considered to be satisfactorily explored, and if it was done there is a possibility of it yet being a paying mine.
JOHN BODEN, Agent.

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G. F. MUNTZ begs to state that, in consequence of the satisfactory results obtained during the five years these tubes have been in use, the following railway companies have entered into contracts to USE the PATENT TUBES exclusively on all their lines, viz.:—
The London and North-Western Comp. The Lancashire and Yorkshire Company. The Midland Company. The Newcastle and Carlisle Company.

These tubes are also very extensively used on all the other principal railways at home and abroad, and for marine purposes by Her Majesty's Navy and several of the leading steam-packet companies, and also by all the eminent engineers of the kingdom. G. F. MUNTZ takes this opportunity of stating that the tubes now manufactured are very superior, both in finish and quality, to those formerly produced in the early stage of the patent.—French Walls, Birmingham, April, 1857.

GEO. RICHARDSON AND CO., Agents, 1, New Broad-street, City, E.C.

CALVERT'S PATENT PROCESS FOR MAKING COKE AND IRON FREE FROM SULPHUR.
FOR LICENSES TO USE the above process, apply to ROBERT LONGDON, Jun., 63, King-street, Manchester.

FOR APPLICATION OF THE PATENT TO GAS WORKS, apply to Mr. GEORGE TROCKLEY, Exchange Chambers, Manchester.

SHEET ZINC AND SPELTER.—ACTON BRIDGE ZINC ROLLING MILLS, NEAR NORTHWICH, CHESHIRE.
SHEET ZINC, out of the best selected SILESIA SPELTER, refined and rolled at these mills, CONSTANTLY ON HAND, of all usual gauges, or rolled to order any practical length, width, or thickness, to suit purchasers, on moderate terms. Also, TELEGRAPH PLATES, SHEATHING FOR VESSELS, &c. OLD ZINC and SHEATHING PURCHASED. SILESIA SPELTER ON SALE.—Apply to the Manager, at the Mills; or at the office, 3, Harrington-street, Liverpool.

SHORTBRIDGE, HOWELL, AND JESSOP, HARTFORD STEEL WORKS, SHEFFIELD, SOLE MANUFACTURERS OF HOWELL'S PATENT HOMOGENEOUS BOILER-PLATE METAL, combining the strength and durability of steel with the malleability of copper; warranted to bear double the pressure of the best boiler-plate iron; RIVETS, ANGLES, and STAYS of the same material. Also, RUSSELL AND HOWELL'S PATENT CAST-STEEL TUBES, for multibore boilers, shafting, railway axles, &c.

Application to be made to SHORTBRIDGE, HOWELL, and JESSOP, Hartford Steel Works, Sheffield; and Messrs. HARVEY and CO., 12, Haymarket, London.

CONDIE'S PATENT STEAM HAMMERS.
FIRST-CLASS STEAM HAMMERS, from 10 cwt. to 7 tons, suitable for jobbing forges, puddling forges, engineers, ship-builders, wagon builders, smiths, &c., made under the subscriber's personal superintendence.
JOHN CONDIE, Govan Bar Ironworks, Glasgow.

MESSRS. R. & J. COUPE, ENGINEERS AND IRONFOUNDERS, MANUFACTURERS OF HORIZONTAL HIGH-PRESSURE STEAM-ENGINES, from 10 to 200-horse power; the larger description of engines mounted with their IMPROVED EQUILIBRIUM SLIDE PISTON VALVE, which has proved itself so eminently adapted for winding and other engines.
Clayton Foundry, Wigan.

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This Fuse is protected by a Second Patent, is manufactured by greatly improved machinery, and may be had of any length and size, and adapted to every climate.
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To be set in the Hubs or Naves of all kinds of Wheels, in New or Old Carriages (with or without patent or close boxes), Coaches, Omnibuses, Cabs, Carriages, Heavy Wagons, Artillery, Dray Carts, &c., of every description. FOR OILING and thoroughly CLEANING the AXLES without taking off the wheels, and in one minute.

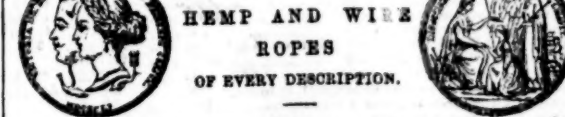
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Messrs. Knowles and Buxton can with confidence bring before the public their IMPROVEMENT in TUYERES, having proved their utility at Mr. Knowles's furnace, Birmingham Moor, as well as at other furnaces in the surrounding neighbourhood. They are now perfectly satisfied that one trial will be sufficient to convince all practical furnace managers that they are the CHEAPEST and BEST ever offered to the public. The annexed diagram shows the principle to be both simple and efficient, conveying a current of cold water direct to the nozzle of the tuyere, which is made of thin tubing (without the incumbrance of cast-iron), allowing the cooling property of the water to act direct upon that part most exposed to the fire, and is sufficient to keep the liquid metal from adhering to the tuyere, which is not the case with those generally in use. After taking into consideration the first cost, and the advantage of being able to work them longer without the loss of time in replacing, or injuring the metal, they will be found, after a fair and impartial trial, to be most decidedly a great advantage to furnace proprietors.
Messrs. Knowles and Buxton are prepared to SUPPLY hot-blast furnace tuyeres, with sockets, at 35s. each; without sockets, at 35s. each; smiths' forge tuyeres, at 15s. each; delivered at Chesterfield Station.

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These ENGINES have been SUCCESSFULLY EMPLOYED for years in PUMPING AND WINDING, in every part of the United Kingdom, and a LARGE STOCK IS NOW READY FOR DELIVERY, either to rent or purchase, from 4-horse to 40-horse power.

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The accuracy of this statement Mr. Clark can vouch for, as he was an eye-witness to this marvellous cure. Sold by all medicine vendors throughout the world, and at Prof. Holloway's establishments, 244, Strand, London, and 80, Maiden-lane, New York; by A. Stamp, Constantinople; J. Guidry, Smyrna; and E. Malt, Malta.

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THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
5130	Alfred Consols (cop.), Phillack (S.E.), 21. 11s. 10d.	215	15 16	217 17 0	20 4 0	Oct. 5, 1887.
1624	Ballewidden (tin), St. Just	111	4	12 5 0	0 5 0	Jan. 1, 1884.
4000	Bedford United (copper), Tavistock	21. 6s. 8d.	6 1/2	9 11 6	0 6 0	Aug. 27, 1887.
2400	Boscawen (tin), St. Just	100	80 90	21 0 0	0 3 0	Sept. 4, 1887.
2000	Botallack (tin), St. Just	91 1/2	220	415 3 0	5 0 0	Oct. 27, 1887.
1200	Brigsteade and Froggatt Grove, Derbyshire.	3	4	3 0 0	3 0 0	Apr. 20, 1886.
100	Bryntall, Llanidloes, Montgomeryshire	30	80	13 0 0	5 0 0	July 31, 1886.
1000	Budnick Consols (tin), Perran	2 1/2	2	10 0 0	5 0 0	July 1, 1886.
430	Budnick Consols (tin), Perran	6	1	9 10 0	9 10 0	Mar. 28, 1887.
6000	Bwlch (silver-lead), Cardiganshire	1s. 6d.	1	0 2 0	0 2 0	July 30, 1886.
1000	Carn Brea (copper, tin), Illogan	15	45	237 10 0	3 0 0	Nov. 1, 1887.
2048	Carnarvon (tin), St. Just	4 1/2	5 1/2	0 15 0	0 3 0	June 16, 1886.
2000	Cefn Cwm Brynno (lead)	33	55	3 0 0	3 0 0	Oct. 4, 1885.
2000	Colicombe (copper)	5	10	2 17 0	7 0 0	Sept. 30, 1887.
256	Condurow (copper, tin), Camborne (S.E.)	20	110	85 0 0	2 0 0	June 10, 1887.
1055	Craddock Moor (copper), St. Cleer	8	40	0 5 0	0 5 0	Sept. 11, 1887.
30000	Craven Moor, Limited (lead), Yorkshire	1/4	1/4	0 9 0	0 9 0	Feb. 28, 1886.
125	Cwystwith (lead), Cardiganshire	60	140	95 0 0	5 0 0	Aug. 20, 1887.
280	Derwent Mines (silver-lead), Durham	300	150	122 0 0	10 0 0	June 23, 1887.
1024	Devon Great Consols (cop.), Tavistock (S.E.)	1	450	595 0 0	3 0 0	Nov. 20, 1887.
672	Ding Dong (tin), Gwynedd	32	30	16 0 0	1 0 0	Mar. 2, 1887.
179	Dunick Consols (tin), Camborne	257 1/2	310	250 270	0 0 0	Oct. 26, 1887.
13800	Drake Walls (tin, cop.), Calstock	11 1/2	3	0 13 6	0 2 0	Sept. 11, 1887.
300	East Daren (lead), Cardiganshire	33	100	23 0 0	3 0 0	Oct. 15, 1887.
2048	East Falmouth (lead)	33	24 3/4	0 5 0	0 2 0	Oct. 10, 1887.
128	East Pool (tin, cop.), Pool, Illogan	24 1/2	340	232 10 0	2 10 0	Oct. 22, 1887.
1024	East Wheal Margaret (tin, cop.)	7 1/2	10	0 5 0	0 5 0	Jan. 11, 1884.
5700	Exmouth (silver-lead)	41 1/2	8	3 5 0	0 4 0	Oct. 23, 1887.
1400	Eyam Mining Company (lead), Derbyshire	5	60	15 13 4	1 0 0	Oct. 5, 1887.
4940	Fowey Consols (copper), Tywardreath	4	7	41 4 3	0 6 0	Feb. 17, 1887.
4448	General Mining Co. for Ireland (cop., lead)	3 1/2	1	0 8 0	0 3 0	June 5, 1883.
3000	Goginan (silver-lead), Cardiganshire	7 1/2	1	22 0 0	0 5 0	Sept. 5, 1880.
1024	Gonamena (copper), St. Cleer	13 1/2	15	0 7 6	0 7 6	Dec. 31, 1882.
243	Graham and St. Austyn (copper)	109 1/2	82 1/2	6 0 0	2 0 0	Nov. 3, 1887.
6000	Great South Tols (S.E.)	24	16	0 5 0	0 5 0	Oct. 26, 1887.
30688	Great Wheel Vor (tin, cop.), Helston (S.E.)	7 1/2	2 1/2	0 5 0	0 5 0	Oct. 22, 1887.
119	Great Work (tin), Gernoe	100	140	231 10 0	7 10 0	Feb. 27, 1887.
1024	Herodfoot (lead), near Liskeard	8 1/2	7 1/2	3 2 6	0 10 0	Sept. 23, 1887.
6000	Hingham Down Consols (copper), Calstock	3 1/2	6 1/2	2 16 0	0 2 0	Nov. 25, 1886.
2000	Holyford (copper), near Tipperary	11	8 1/2	4 2 6	0 5 0	Jan. 28, 1887.
2580	Ile of Man (Limited)	25	42	54 17 3	1 0 0	Sept. 3, 1887.
76	Jamaica (lead), Mold, Flintshire	31. 13s. 6d.	1	380 0 0	5 0 0	Mar. 10, 1881.
20	Lacey Mining Company, Isle of Man	1000	1000	1420 0 0	50 0 0	June 30, 1887.
160	Levant (copper, tin), St. Just	21 1/2	90	1062 0 0	4 0 0	May 12, 1887.
5000	Lewis Mines (tin, cop.), St. Erth	51. 15s. 11 1/2d.	3 1/2	0 10 0	0 10 0	Dec. 20, 1885.
400	Liaburne (lead), Cardiganshire, Wales	130	120	301 10 0	3 0 0	Oct. 1, 1887.
6000	Marke Valley (copper), Caradon	41. 10s. 6d.	3	0 5 6	0 3 0	Sept. 7, 1885.
5000	Mendip Hills (lead), Somerset	3 1/2	1 1/2	1 7 6	0 5 0	May 29, 1887.
5000	Merilyn (lead), Flint	3 1/2	3 1/2	1 11 0	0 2 0	June 22, 1887.
1800	Mines Mines (Limited)	25	90	21 0 0	3 10 0	Aug. 12, 1887.
20000	Mining Co. of Ireland (copper, lead, coal)	7 1/2	15	12 15 6	0 6 0	July 2, 1887.
5000	Nantes and Penrhyn, Limited (23 1/2 shares)	1 1/2	1 1/2	0 1 6	0 1 6	Apr. 30, 1885.
470	Newtons Mining Company, Co. Down	50	35	48 0 0	0 1 0	Oct. 17, 1885.
300	North Pool (copper, tin), Pool	362. 10s. 3d.	70	324 0 0	2 0 0	Dec. 26, 1884.
140	North Roskear (copper), Camborne	501. 7s. 6d.	130	125 13 5	4 0 0	Sept. 26, 1885.
6000	North Wheel Basset (cop., tin), Illo. (S.E.)	15 1/2	15 1/2	13 19 0	0 6 0	Oct. 28, 1887.
6400	Par Consols (copper), St. Blaise (S.E.)	1 1/2	20	31 4 0	1 10 0	Oct. 27, 1887.
500	Peak United (lead), North Derbyshire	7 1/2	2 1/2	4 10 0	0 10 0	Apr. 12, 1886.
200	Phoenix (copper, tin), Llanidloes	100	370	224 10 0	20 0 0	May 4, 1887.
1000	Pollbrin (tin), St. Agnes (Preferential)	15	1	18 11 9	1 0 0	July 11, 1887.
560	Providence Mines (tin), Uney Lelant	201. 13s. 2d.	80	70 4 6	4 0 0	Nov. 18, 1887.
2500	Roseworthy and Bachelidon (lead)	11 1/2	12	0 13 0	0 3 0	Oct. 21, 1887.
512	Roswarden United (copper, tin), Gwynedd	12	30	32 10 0	1 10 0	June 8, 1887.
13800	Sorridge Consols (cop.), Whitechurch (S.E.)	6s.	2 1/2	0 10 0	2 6 0	July 27, 1887.
256	South Caradon (copper), St. Cleer (S.E.)	2 1/2	340	482 0 0	8 0 0	Sept. 29, 1887.
128	South Crinins (copper), St. Austyn	19	285	60 0 0	0 0 0	May 18, 1886.
256	South Tols (copper), Redruth	130	120	74 0 0	3 0 0	Nov. 2, 1887.
496	South Wheal Frances, Illogan (S.E.)	184. 18s. 9d.	250	275 5 0	8 0 0	Nov. 28, 1887.
1024	Spearne Consols (tin), St. Just, Cornwall	31. 6s.	2	8 8 6	0 2 6	Dec. 10, 1883.
280	Spearne Moor (copper), St. Just	237. 7s. 8d.	15	4 5 0	0 10 0	June 18, 1886.
970	St. Aubyn and Grylls (cop., tin), Breage	61. 8s. 4d.	5	0 17 6	0 7 6	April 1, 1882.
20000	St. Day United (tin and copper)	3	1 1/2	0 2 6	0 1 0	Sept. 14, 1887.
94	St. Ives Consols (tin), St. Ives	80	160	915 0 0	5 0 0	Nov. 19, 1887.
9600	Tamar Consols (all-lead), Beeralston (S.E.)	4 1/2	1 1/2	4 13 6	0 2 6	Nov. 7, 1886.
6000	Tinctor (copper, tin), Pool, Illogan (S.E.)	9	14	8 8 6	0 5 0	April 13, 1887.
872	Trevelyan Consols (tin), St. Austyn	11 1/2	14	1 15 0	0 1 0	Feb. 21, 1884.
96	Trevelyan (copper), Gwynedd, Cornwall	42 1/2	65	467 15 0	5 0 0	June 4, 1885.
120	Trevelyan (copper), Gwynedd, Cornwall	15 1/2	20	403 13 6	2 10 0	Apr. 29, 1881.
4000	Trevelyan (copper), Gwynedd, Cornwall	15 1/2	20	403 13 6	2 10 0	Apr. 29, 1881.
4096	Trevelyan (copper), Gwynedd, Cornwall	15 1/2	20	403 13 6	2 10 0	Apr. 29, 1881.
100	Trumpet Consols (tin), near Helston	95	50	55 0 0	5 0 0	Dec. 20, 1887.
400	United Mines (copper), Gwynedd (S.E.)	40	125	61 5 0	2 0 0	June 12, 1886.
400	Val of Towy (lead), Carmarthen (S.E.)	1	1	0 3 0	0 6 0	June 12, 1887.
512	Wendron Consols (tin), Wendron	231. 7s. 6d.	40	34 1/2	2 0 0	Sept. 22, 1887.
6000	West Basset (copper), Illogan (S.E.)	1 1/2	25	12 0 0	0 8 0	Sept. 22, 1887.
256	West Caradon (copper), Liskeard (S.E.)	20 7	120	285 5 0	2 0 0	Sept. 23, 1887.
256	West Damsel (copper), Gwynedd	210 7	80	22 0 0	2 0 0	July 20, 1887.
1024	West Providence (tin), St. Erth	11. 11s. 7d.	13	33 1 9	0 10 0	April 8, 1887.
400	West Wheal Seton (copper), Camborne	38 1/2	330	94 10 0	10 0 0	Oct. 28, 1887.
228	Wheal Arthur (copper), Calstock	6	6	2 0 0	1 0 0	Nov. 14, 1885.
240	Wheal Bal (tin), St. Just	6	5	2 0 0	1 0 0	Oct. 6, 1887.
512	Wheal Basset (copper), Illogan (S.E.)	5 1/2	170	468 10 0	5 0 0	Oct. 6, 1887.
256	Wheal Buller (copper), Redruth (S.E.)	5	310	850 0 0	7 10 0	Nov. 17, 1887.
1024	Wheal Charlotte, Penryn	3 1/2	4	1 10 0	0 10 0	Sept. 9, 1885.
256	Wheal Clifford (copper), Gwynedd	450	230 250	42 0 0	3 0 0	Oct. 26, 1887.
600	Wheal Fortescue, Bodmin	nil.	1	0 2 4	0 1 6	Jan. 14, 1886.
128	Wheal Friendship (copper), Devon	50	80	387 10 0	8 0 0	May 10, 1884.
672	Wheal Jane (silver-lead), Kes.	4 1/2	20	8 10 0	1 10 0	Oct. 16, 1887.
5000	Wheal Kitty (tin), St. Agnes	4 1/2	19	0 6 0	0 3 0	Mar. 24, 1887.
1024	Wheal Kitty (tin), Uney Lelant (S.E.)	21 7 1/2	4 1/2	6 0 0	1 0 0	Sept. 17, 1887.
430	Wheal Lovell (tin), Wendron	33	18	31 0 0	1 0 0	Sept. 5, 1886.
448	Wheal Margaret (tin), Uney Lelant	19 1/2	60	82 0 0	4 0 0	Aug. 25, 1887.
1024	Wheal Mary Ann (lead), Menheniot (S.E.)	8	48	30 2 6	2 5 0	Sept. 15, 1887.
60	Wheal Owles, St. Just, Cornwall	70	300	220 13 0	5 0 0	Aug. 2, 1887.
210	Wheal Reeth (tin), Uney Lelant	35	107	35 40	0 0 0	Aug. 18, 1882.
128	Wheal Seton (tin, cop.), Camborne	107	150	125 13 5	3 0 0	Oct. 12, 1887.
1040	Wheal Trelawny (all-ld.), Liskeard (S.E.)	4 1/2	23 1/2	29 10 0	1 0 0	Oct. 26, 1887.
1024	Wheal Tremayne (tin, cop.), Gwynedd	11 1/2	5	10 2 6	0 7 6	Jan. 11, 1884.
4096	Wheal Wrey (lead), St. Ives	11. 9s.	31 1/2	2 10 0	0 4 0	June 16, 1887.
5000	Wicklow (copper), Wicklow	5	31 1/2	27 5 6	1 0 0	July 9, 1887.

* Dividends paid every two months. + Dividends paid every three months.

FOREIGN MINES.

5000	Allen Mining Company (copper), Norway	214 1/2	2	130	4 5 0	0 15 0	Nov. 21, 1887.
2464	Burra Burras (copper), South Australia	5	114	130	85 12 0	0 5 0	June 5, 1887.
12000	Cobre Copper Company (cop.), Cuba [S.E.]	40	40	38 40	1 0 0	0 1 0	July 21, 1887.
10000	Copago Mining Company, Chili [S.E.]	16	12	10 12	5 8 0	0 10 0	May 9, 1886.
20000	General Mining Assoc., Nova Scotia [S.E.]	20	16 1/2	13 15	10 5 0	0 15 0	July 7, 1887.
15000	Linares (lead), Pozo Ancho, Spain [S.E.]	3	8	7 1/2 3/4	4 5 6	0 5 0	June 25, 1887.
10000	Lustanian (of Portugal) [S.E.]	1 1/2	1 1/2	1 1/2	0 4 3	0 1 9	Sept. 3, 1886.
19315	Marquitta and New Granada [S.E.]	1	1	1	0 4 0	0 1 0	Aug. 20, 1887.
25000	Peninsular Mining Company (Limited)	20	2	5 6	1 0 0	0 1 0	June 26, 1885.
10000	Peninsular (silver-lead), France [S.E.]	20 1/2	6	1 1/2	1 0 0	1 0 0	June 26, 1885.
7000	Royal Santiago (copper), Cuba [S.E.]	16 1/2	2	1 1/2	33 0 0	1 5 0	July 12, 1884.
11000	St. John del Rey	15	12	12 1/2 1/3	34 7 6	0 1 0	Nov. 26, 1886.
43174	United Mexican (silver), Mexico [S.E.]	28 1/2	3 1/2	3 1/2	1 16 6	0 4 0	Feb. 14, 1883.
80000	Mexican and So. Amer. Smelting Co. [S.E.]	10	1	1 1/2	6 15 0	0 7 6	Dec. 12, 1885.
88676	North British Australian [S.E.]	1	1	1	0 1 8	0 1 0	Apr. 17, 1885.

NON-DIVIDEND FOREIGN MINES.

20000	Australian (S.E.)	7	1	1	1	1
40000	Chancellorville Freehold	1	1	1	1	1
50000	Chancellorville Freehold	1	1	1	1	1
50000	Chancellorville Freehold	1	1	1	1	1
50000	Chancellorville Freehold	1	1	1	1	1
50000	Chancellorville Freehold	1	1	1	1	1
50000	Chancellorville Freehold	1	1	1	1	1
50000	Chancellorville Freehold	1	1	1	1	1
50000	Chancellorville Freehold	1	1	1	1	1
50000	Chancellorville Freehold	1	1	1	1	1

PROGRESSIVE MINES.

Akers.		Paid. Last Price. Present.							
6000	Abbey Consols (lead), Cardigan.	14s. 6d.	1 1/2	1 1/2	1024	Cardon Consols, St. Cleer	11	5 1/2	7 1/2
10000	Angarack	1	1 1/2	1 1/2	1016	Cargoli (silver-lead), Newlyn	£12 7 3	15	10 12
10000	Arundel (cop.), near Ashburton	1	1 1/2	1 1/2	235	Carmanthen United (lead)	2 1/2	2 1/2	2 1/2
899	Balmcon (tin), Uney Lelant	£3 6	1	1 1/2	4370	Casswell (copper), St. Ives	2 1/2	2 1/2	2 1/2
4000	Ballyvaughan, Co. Clare	£23 3	3 1/2	3 1/2	7900	Carrack Dews United, St. Ives	2 1/2	2 1/2	2 1/2
10000	Bampfyde (copper), Devon	1	1 1/2	1 1/2	1055	Carvannall (copper), Gwennap	11	5	2 1/2
1000	Barf (lead), Keswick	1 1/2	1 1/2	1 1/2	6400	Carvath United, St. Austell	2 1/2	1	2 1/2
6000	Basset Grange United (cop.), Keswick	1 1/2	1 1/2	1 1/2	6400	Castell (lead and blende), Card. 11s. 6d.	1	1	1
4000	Bedford Consols (copper)	12s.	1	1	12000	Catherine and Jane Consols	1	1	1
2200	Benderg (Limited)	1	1	1	6000	Cefn Gwyn (sil.-ld.), Cardigan	1	1	1
2000	Berriow Consols	£12 16	10	8	6000	Chollan Consols (copper)	3s. 6d.	1	1
5000	Boiling Well (cop.), Gwiltian	1	3	1 1/2	1204	Cljiah & Wentworth (tin, cop.)	£21 15 6	4 1/2	5 1
8000	Bowdren (copper)	£17 6	3	1 1/2	8000	Closwen (copper), Llanidloes	1 1/2	1 1/2	1 1/2
1250	Boswell	1	1	5 1/2	2450	Cook's Kitchen, Tllogan	£16 10 1/2	5	4 1/2 5
1120	Brifcon Consols	£8 8	7 1/2	7 1/2	250	Copper Hill (copper), Redruth	3s. 200	180	200
4000	Brook Wood, Buckfastleigh	1	1	1	2000	Cwm Erfin (lead), Cardiganshire	8	1 1/2	1 1/2
2000	Bryn-y-Fedwen (lead)	3 1/2	1	1	6000	Cwm Hebon (Limited)	£3 6 1/2	1 1/2	1 1/2
6000	Buckland Consols (copper)	1	1	1	1000	Daren (sil.-lead), Cardiganshire	6	5	4 1/2 5
6380	Buller and Bassett United	2 1/2	4	4 1/2	4000	Devon & Cornwall United (cop.)	£4 6 3/4	12	15
1200	Buller and Bertha (copper)	£3 2	1 1/2	1 1/2	3967	Devon and Courtney (copper)	1	1	1
500	Cas-Cryan, Cardiganshire	1s. 6d.	1	1 1/2	4000	Durra Durra (copper)	£5 3	1	2 1/2
600	Castell Hall (lead), Limited	10	1	1	1000	Durra Green (copper)	1	2 1/2	2 1/2
4000	Calestok Consols (copper)	5	5	5 1/2 6	4550	Devon Wheel Buller	£1 15 6	1	1
2000	Calestok United (tin and cop.)	6 1/2	1 1/2	1 1/2	4315	Duke of Cornwall, Llanthwylle	£6 4 1/2	3 1/2	3 1/2
1000	Camborne Consols	13s.	7	8 1/2	3000	Dyffrynwm (lead), Wales	£12 6 1/2	13	13 1/2
900	Camborne Veau & Wm. Francis	£12 8 1/2	7	7 1/2	25	Eaglebrook, Llanphangal, Card. 40	20	23 1/2	23 1/2
					4005	East Alfred Consols	£1 6 1/2	2 1/2	2 1/2